Southwest Regional EMS & Trauma Care System Plan

July 2005 – June 2007

Submitted By:

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I. Executive Summary:

The Southwest Region is committed to a cohesive system including public access to emergency medical dispatch; prehospital response and care; definitive hospital care and rehabilitation; system evaluation; and disaster preparedness. The regional plan addresses these system elements identifying what is in place, what is needed and proposing solutions.

Authority

The Southwest Regional EMS and Trauma Care Council is the coordinating body for the regional EMS and Trauma Care system. In collaboration with stakeholders the Regional Council writes the plan which guides regional system development and implementation.

Maintaining the leadership role of the Southwest Regional EMS and Trauma Care Council in system planning development and implementation is an ongoing regional need.

Injury Prevention and Public Education (IPPE)

The focus of the Southwest Region's IPPE programs for July 2005-June 2007 is to reduce injuries and deaths associated with trauma and increase public awareness of injury-related problems in the region.

There is a system wide need for ongoing financial support for injury prevention programs and activities. The Regional Council has identified that in order to apply existing funding resources most effectively across all system components, further exploration of a new contracting model is needed and funding distribution allocations may change. Therefore, the Southwest Region Council has transitioned from providing direct coordination of injury prevention programs to contracting with outside entities to carry out prevention projects.

Prehospital

The prehospital component of the EMS and Trauma Care System is multi-faceted. The existing communications system provides the public with E- 911 access to emergency medical services. Dispatch centers track and can provide EMS data. All dispatchers have completed Emergency Medical Dispatcher training. Medical Program Directors in each county provide leadership for EMS providers and legal authority for delivery of patient care through protocols. The combined number of EMS providers in the region is in excess of 1,300 First Responders, EMTs and Paramedics. Initial certification training and continuing medical education is a focus of regional funding. Priority is placed on meeting rural training needs. The number and level of prehospital verified trauma care services meet the current known needs of the system for prehospital care. Regional Patient Care Procedures are in place in the region. County Operating procedures are currently utilized by two of the six Southwest Region counties.
The ongoing needs for the prehospital system elements include effective communications; recruiting and retaining an adequate number of EMS responders; funding for communication, training and patient care equipment; improving region response area maps including identifying any areas that may be underserved by EMS; clarify Patient Care Procedures and County Operating Procedures.

Designated Trauma Care Services
The Southwest Region has an established network of trauma services. There are five designated trauma services within the regional boundaries. Additionally, due to geography and close proximity of high level Oregon trauma services, two out of region Washington State designated trauma services and five Oregon trauma centers are part of the network. Rehabilitation for trauma is available within the region and through the Oregon trauma system.

The primary need for trauma services is adequate reimbursement to better augment operational costs. Physician coverage for subspecialty care is an additional trauma care need.

EMS and Trauma System Evaluation
System participants are strong supporters of the use of data to direct the system. The Regional Council maintains involvement in the Washington State EMS Information System (WEMSIS) project designed to improve the availability of prehospital data for system improvement. The trauma services all participate in the State Trauma Registry. The trauma services report that they submit prehospital and hospital trauma data.

There are two identified needs related to improving current system evaluation capabilities. RCW and WAC changes are needed to enable the submission of prehospital data. Funding is needed to augment the inherent costs of prehospital data collection and submission. Enhanced integration between prehospital agencies and designated trauma centers is needed to facilitate identification and communication of overall system issues to be targeted by the quality improvement process.

All Hazards Preparedness
Prehospital agencies and hospitals are actively involved in All Hazard Preparedness planning. They are currently identifying and building resources needed to prepare the region to respond to a catastrophic event. Their focus is on collaborating to enhance capabilities system wide.

Regional Council needs to gather current status information on the All Hazard Preparedness elements in order to complete that section of the EMS and Trauma Care System Plan.

Southwest Region EMS and Trauma System Goals
- The Southwest Regional EMS and Trauma Care Council is the recognized leader of Southwest Washington EMS and Trauma System development and implementation.
- Fatal and disabling injuries are prevented within the Southwest Region.
- The Southwest Region's emergency medical communications infrastructure meets the need for effective communication for all EMS provider agencies.
- MPDs are formally prepared to provide EMS Medical Direction and leadership.
- EMS training is supported by Regional Council grant funding.
- Un-served or under-served areas and resource needs are clearly defined for trauma response.
- County Operating Procedures are in place.

- A system of designated trauma care services, and trauma rehabilitation services meets the Southwest Region's trauma patient care needs.
- Complete EMS and trauma data is available in the Southwest Region.
- The Regional QA & I Committee monitors system effectiveness and communicates system findings to EMS and trauma system participants.
- A formal inclusive region-wide all-hazard planning process is in place.

Summary of proposed changes within this Regional Plan which require specific Department approval:

- There are no changes being made to the recommended numbers of Department-approved verified prehospital services within the region;
- There are no changes being made to the recommended numbers and/or levels of Department-designed trauma services and/or rehabilitation services within the region;
- There are no changes to the current Department-approved regional Patient Care Procedures and/or County Operating Procedure in the appendices.
- There are no request(s) for Department approval of regional council-adopted higher-than-state minimum standard(s), for implementation within the region.

II. Authority – Regional System Coordination

1. System Status:

The Southwest Regional Council provides EMS & Trauma system coordination in the Southwest Region of Washington State. The region is comprised of Clark, Cowlitz, Skamania, Wahkiakum, Klickitat and South Pacific counties. The Council coordinates the development of the biennial EMS and Trauma system plan which addresses a comprehensive system of care. The Council is authorized by WAC 246-976-960 as a regional coordinating body and to develop the regional plan. The Southwest Regional Council has a board consisting of a balance of stakeholders from across the EMS & Trauma Care system.

The Council maintains an office staffed by an Administrator and an Administrative Assistant. The function of the office is to facilitate the day to day council operations. The council has delegated system planning and review of specific system components to committees. These include an Executive Committee, Training Committee and Injury Prevention Public Education Committee (IPPE).

The Council contracts with WA Department of Health and other entities for operational funding. The Council applies for and has been granted funding for special projects from various sources. The Southwest Region Council provides funding for local EMS County Council support and Injury Prevention and Public Education (IPPE) based on demonstrated needs.

Mission statement
The mission of the Southwest Regional EMS & Trauma Care Council is to optimize access for citizens of, and visitors to, the Southwest Region of Washington State to appropriate and timely trauma and emergency medical care in an effort to minimize the human suffering and cost associated with preventable mortality and morbidity due to trauma and illness. The Regional Council recognizes the changing methods and environment for providing optimal emergency care under the varied conditions throughout the Southwest Region.

Guiding Principles for the Southwest EMS and Trauma Care Council

Injury Prevention and Public Information/Education

- Decrease the incidence of trauma in the Region through a well designed and appropriate injury prevention program.
- Focus IPPE programs to target most frequent injuries as identified by available data and develop outcome based strategies for interventions.

Pre-hospital

- Assure rapid and appropriate access to the regional trauma system through a region-wide 911 system.
- Assure the availability of essential emergency medical dispatcher, pre-hospital, and hospital trauma care training throughout the Southwest Region.
- Maintain specialized trauma verified first response and transport vehicles to respond to all major trauma incidents in the Region.

- Assure optimal trauma care for trauma victims in the Region and develop a tool to determine if the existing pre-hospital verifications provide adequate coverage for areas of SW Region and make recommendations for changes for any deficiencies found.
- Ensure rapid transportation of trauma patients, by trauma-verified ambulances and/or air ambulance, to the appropriate health care facility.
- Revise and improve trauma-related prehospital, hospital, and transfer procedures.
- Develop trauma stress teams that respond to trauma incidents and help victims and families of victims of trauma.
- Balance the cost of trauma care and the trauma system against the cost to society of failure to provide such a system.

Designated Trauma Care Services

- Evaluate system to determine if SW Region is adequately served by existing Trauma Service Designations.

Data Collection and Submission

- Encourage timely submission of prehospital data to hospital trauma registrars for submission to DOH.
- Work with the State Data TAC and pre-hospital agencies with existing electronic data collection to continue development of an electronic patient care form.

EMS and Trauma System Evaluation

- Revise and improve the Region's quality assessment and improvement program to monitor the regional system and to identify areas for improvement and research.
- Work with Medical Program Directors to ensure that standards and recommendations in this Plan are enacted.
- Develop a regional oversight process to ensure that system changes proposed in the Region are consistent with this Plan.
- In all cases, in its goals, objectives, and recommendations, this Plan considers the patient's needs as the primary criteria guiding the development of the Southwest Region's EMS and Trauma Care Systems. By ensuring the skilled transportation of the right trauma patient to the right trauma center at the right time, as well as effective inter-facility transfer and eventual rehabilitation, the Southwest Region strives to meet those needs.

2. Need Statement:

Maintenance of the leadership function of the regional council is needed. Costs related to the system need to be identified for all system components in order for the Council to effectively lead system planning.

3. Goals:

Goal 1: The Southwest Regional EMS and Trauma Care Council is the recognized leader of Southwest Washington EMS and Trauma System planning, development and implementation.

Objective 1: Provide a platform at the bimonthly regional council meetings for local council input for system planning and development.

Strategy 1: Add a system planning input item on the regional council meeting agendas for each county.

Strategy 2: Collate the county's system planning input at least semi-annually to provide to appropriate committees for ongoing planning and development.

Cost:
Estimated System Cost: unknown
Regional Council Cost: Administrative overhead - $ 130,000.00 annually

Barriers: no critical barriers

III. Injury Prevention & Public Information/Education

A. IPPE

1. System Status:

Table A-1: Southwest Regional Injury Data

Fatal Injuries 1998-2002	Clark	Cowlitz	Klickitat	Skamania	Pacific	Wahkiakum	Region Totals	WA State Total
Falls	95	43	6	4	10	3	161	2079
Suicide	252	69	17	9	29	6	382	3767
MVT	165	54	22	8	24	2	275	3426
Unintentional Poisoning	107	46	3	6	5	1	168	2037

Non - Fatal Injuries 1998-2002	Clark	Cowlitz	Klickitat	Skamania	Pacific	Wahkiakum	Region Totals	WA State Total
Falls	3040	1388	103	54	467	63	5115	82875
Suicide	814	657	31	5	25	10	1542	14315
MVT	667	220	17	5	57	8	974	18698
Unintentional Poisoning	417	238	9	2	32	4	702	7485

The focus of the Southwest Region's IPPE programs for July 2005-June 2007 is to reduce injuries and deaths associated with trauma and increase public awareness of injury-related problems in the region.

Some of the non-fatal injury data for the Southwest Region, especially for Clark County, is not captured. Often times non-fatal injury hospitalizations and/or patients are admitted to Portland, Oregon area Trauma Centers and therefore, not recorded in the DOH injury database for Washington State. This results in an in-complete data set.

The Region council provides guidance and support in an effort to meet prevention goals. At this time there are numerous agencies involved in a collaborative partnership focused on prevention. The following are our partners in Injury Prevention throughout the Southwest Region;

- Lower Columbia SAFE KIDS Coalition (Cowlitz County)
- Clark County Public Safety Educators (PSEC)
- Klickitat Valley Health Services Ambulance Coalition
- Klickitat County –Coalition Against Youth Trauma (CAYT)
- S. Pacific County I.P. Traffic Safety Task Force
- Wahkiakum County Injury Prevention Coalition
- Clark County SAFE KIDS Coalition
- Youth Suicide Prevention Implementation Team (YSPIT)
- County EMS & Trauma Care Councils
- Fire Departments
- EMS agencies
- Southwest Advocates for Youth (SWAY)
- American Medical Response (AMR)

- American Trauma Society, Washington Chapter
- Southwest Region Quality Assessment & Improvement Committee
- Southwest Washington Medical Center
- St. John's (Peace Health) Hospital
- State Farm Insurance
- Farmer's Insurance
- Burgerville, USA
- Wal-Mart Corporation
- Target
- Washington Traffic Safety Commission
- Senior Assistance - Agency on Agency
- Adapt A Home – Unlimited Choices

Direct program financial and coordination support is given to the following:

- **Falls Prevention** pilot project January 1, 2004 - June 30, 2005. The pilot was conducted within Clark County. A model will be created so that this project may be offered to all Southwest Region Counties.
- **DUI Traffic Safety** related injury prevention projects. On-going support for Trauma Nurses Talk Tough (TNTT), Southwest Washington Advocates for youth hospital visitation program (SWAY
- **Bicycle Helmet** distribution and fitting.

The Southwest Region EMS council has evaluated its injury prevention model. A decision has been made to change the council's arrangement within the entire injury prevention program. In the past a full time injury prevention coordinator was maintained by the Region Council. In maintaining this, a heavy cost burden was borne by the council. In order to better allocate limited funding across all system components planning has begun to develop a new operating model. Rather than staff a full time prevention coordinator a part time independent contractor can fulfill those duties at a fraction of the cost. This will free funds that may be directed to relieve the financial strain of other council projects.

2. Need Statement:

The Region has both the need to maintain established effective programs and implement a new prevention operating model. Region council has determined the need to restructure the IPPE program. Over the years there has been a disproportionate distribution of funding to the prevention program while short changing other council project responsibilities. The Region Council will restructure the method of managing prevention objectives while maintaining program efficacy and improving our prevention through targeted solutions. Best practice data will direct which programs should be maintained and new programs needed.

The primary need for IPPE programs in the region is funding. As stated, the regional growth and demand for services continues while funding remains stagnant. Grant funding has provided a level of additional support for programs, however, current economic conditions restrict grant access/funding.

At this time a process for identifying comprehensive system cost for injury prevention needs within the region has not been developed.

3. Goals:

Goal 1: Fatal and disabling injuries are prevented within the Southwest Region.

Objective 1: Reorganize and implement a new IPPE model for the Southwest Region Council by January 31, 2006. Demonstrate implemented contract based model of prevention projects.

Strategy 1: Determine how this will be supported through the region council by contracting rather than a full time injury prevention coordinator staff model and implement it.

Objective 2: Distribute and fit a minimum of 300 helmets annually.

Strategy 1: Provide helmets to existing injury prevention partners for use in bicycle helmet awareness fitting & distribution events.

Objective 3: Evaluate the existing pilot project for providing 50 in home assessments fall prevention awareness education at each site September 30, 2005.

Strategy 1: Find organizations/programs willing take over or absorb the routine functions of program coordination for the in home falls assessments project.

Costs:
Estimated System Cost: unknown – At this time a process for identifying comprehensive system cost for injury prevention needs within the region has not been developed.
Regional Council Cost: up to $30,000.00 annually

Critical Barriers: no critical barriers

IV. Prehospital

A. Communication

1. System Status:

Table B: Dispatchers with EMD Training by County

County Name	Total # of Dispatchers in the County	EMD Training Program/s used in the County (if none indicate so)	# Dispatchers within the county who have completed EMD training from a course in column #3
Clark	38	MPDS/NAEMD	38
Cowlitz	6	MPDS	6
Klickitat	3	Power Phone	3
Pacific	3	MPDS	3
Skamania	3	MPDS	3
Wahkiakum	2	MPDS	2
Region Totals	55		55

Throughout the Southwest Region traditional landline telephone contact is fully served by E-911systems; there are no problems with citizen access. Wireless technology is a reliable means of contacting 911 dispatch centers. However, wireless technology has not yet developed enough to ensure E-911sevice universally.

All Southwest Region Dispatchers have completed EMD training as shown in the table above. Included in this training is instruction on how to guide bystanders to care for the patient until EMS arrives.

The Southwest Region Council is working through the Washington DOH Data Registry TAC to help define a data set for eventual data collection to better identify and track response and patient contact times as well as other elements to aid in system planning.

The Southwest Region is growing rapidly. The added population is already demanding more from dispatch centers and their staff. The potential for overload needs to be evaluated. The Region will participate in dispatch system impact planning. It is hoped that new and improved technology will aid in absorbing the growing demand.

Prehospital EMS agencies utilize VHS radios, Cellular phones and in some very remote areas satellite phones to communicate with dispatch, between units, and for On-Line medical control. Implementing these tools has improved the communication level region wide. As wireless and satellite technology improves and becomes more affordable the entire EMS system will benefit.

2. Need Statement:

The Southwest Region Council needs to continue to support and maintain representation on the Washington DOH Data Registry TAC to refine the data collection in order to better identify and track dispatch and other issues within the Southwest Region.

State of the art communication technology is evolving so rapidly it is difficult to anticipate what is coming next to improve the over all system and where to best invest the dispatch center resources. There is a need in the region to follow changes and plan for the future.

3. Goals:

Goal 1: The Southwest Region's emergency medical communications infrastructure meets the need for effective communication for all EMS provider agencies.

Objective 1: Improve the Regional Council's involvement in planning for emergency medical communications by bringing stakeholders together annually.

Strategy 1: Hold an annual meeting for all dispatch agencies & invite other stakeholders to open dialog on improved access to run times for report completion and identify other challenges.

Objective 2: Provide Regional Council Representation on the WA DOH Data Registry TAC and at its scheduled meetings.

Costs:
Estimated system costs: unknown
Regional Council cost: up to $1000.00 annually to support meetings

Critical Barriers: no critical barriers

B. Medical Direction of Prehospital Providers

1. System Status:

The MPDs within the Southwest Region provide leadership for prehospital care at the county level. Their leadership roles and responsibilities are carried out in accordance with RCW and WAC. They provide legal authority for Paramedic EMTs and First Responders to provide care under their medical license. In all six counties they provide medical control through direct-online and indirect-offline processes. In the Southwest Region MPDs develop patient care protocols, run review models for quality assurance, PCPs and COPs. MPDs recommend approve all Southwest Region provider initial certification and recertification.

2. Need Statement:

Various needs related to medical direction of prehospital providers have been identified. One need is that current statutory criteria for MPD selection do not address formal preparation in EMS medical direction or administration. The Southwest Region Council supports formal preparation of MPD appointment. MPDs may or may not have the EMS system background needed to fulfill their system roles. A second issue and identified need is that while the MPDs are actively involved at the county level, their involvement at the Region Council level is minimal. Their expertise and input is desired for system wide planning and development.

3. Goals:

Goal 1: MPDs are formally prepared to provide EMS Medical Direction and leadership.

Objective 1: Survey Regional MPDs, by October 2005, to determine what formal MPD Training Program they have completed.

Objective 2: Identify a model MPD skill set by June 2006.

Strategy 1: Utilize MPDs and a prehospital committee to develop a draft model MPD skill set by January 2006

Strategy 2: Present the draft model MPD skill set to the council

Objective 3: Submit a formal recommendation to DOH on an MPD skill set model By September 2006.

Cost:
Estimated system cost: unknown
Regional Council Cost: Cost Absorbed by Administrative overhead.

Critical Barriers: no critical barriers

C. Prehospital EMS and Trauma Services

1. System Status:

Table C-1: Prehospital Providers by County and Level

	FY04-05 Plan				FY06-07 Plan			
County	FR	EMT	EMT-I	PM	FR	EMT	EMT-I	PM
Clark	70	327	65	159	69	364	88	192
Cowlitz	55	177	43	30	34	189	44	37
Klickitat	38	53	4	14	24	51	17	15
Pacific	35	56	20	18	36	60	15	17
Skamania	5	26	5	7	9	27	3	5
Wahkiakum	1	34	5	3	1	35	4	3
Regional Totals	204	675	142	231	173	726	172	268

Table C-2: Prehospital Providers By County And Level With Career Status

County	**FY04-05 Plan (Not Available from 04-05 Plan)**							
	Career FR	Vol FR	Career EMT	Vol EMT	Career EMT-I	Vol EMT-I	Career PM	Vol PM
County	**FY06-07 Plan**							
	Career FR	Vol FR	Career EMT	Vol EMT	Career EMT-I	Vol EMT-I	Career PM	Vol PM
Clark	7	62	182	182	73	15	189	3
Cowlitz	7	27	49	140	16	28	36	1
Klickitat	2	22	6	45	5	12	14	1
Pacific	0	8	8	21	4	3	11	1
Skamania	0	9	1	26	3	1	5	0
Wahkiakum	0	1	0	35	0	4	0	3
Oregon	0	0	0	1	0	0	0	0
Regional Totals	16	129	246	450	102	63	255	9

Along with the certified prehospital EMS providers, the community at large utilizes additional public safety personnel from various fields. The Volcano Rescue Team, Mountain Rescue Association Team, and North Country EMS provide special qualifications for mountain rescue EMS related incidents. In addition Oregon EMS resources are available to help manage MCI or disasters to bordering counties.

The Council has established criteria that emphasize training for rural and volunteer agencies, as well as those who share training programs with other agencies. The Council's priorities for awarding training support grants from its annual budget are:

1. Training to meet minimum criteria for licensure or verification
2. Agencies serving rural communities
3. Volunteer agencies
4. Agencies who open their training programs to other agencies

The Southwest Region Council office maintains instructor resources such as; a library of videos, texts and training aid equipment, available on loan to all instructors and agencies. The Southwest Region Council provides training support grants program available to all prehospital providers in the Region.

2. Need Statement:
Recruitment and retention of qualified personnel is an ongoing need in rural areas. This is due in part to the evolution the EMS profession in which the personnel base is evolving from a volunteer pool to full time professional providers. This challenges rural areas because fewer resources are often available in rural areas to meet the increasing demand on volunteers to maintain certification and skill levels. All Southwest Region local councils report that OTEP programs are being utilized. However the travel distance between county centralized training sites or partnering agency training sites is a challenge for volunteer providers to maintain didactic and skills proficiency. Rural agencies and Local County councils have asked for more instructors and SEIs for both ongoing and initial training needs.

The retention of rural personnel can be augmented by offering training opportunities. The cost for initial training and all ongoing continuing medical education of personnel is borne by individual agencies and supplemented by Southwest Regional Council Grant funds. Because funding is an ongoing issue in agencies and the Southwest Regional Council agencies are encouraged to seek needs grants through the DOH Needs Grants and other outside sources to help fund training courses and training equipment.

As state-of-the-art training equipment becomes available the EMS agencies face the challenge of finding ways to obtain new devices. Manikins, audio video equipment, text books, reference materials, disposable training supplies, and other related items are but a few of the identified necessary training aids required to provide adequate prehospital provider education. In order to continue to provide appropriate patient care in keeping with the progress of best practices, basic and state of the art specialty emergency medical equipment is needed. This includes pediatric equipment, specialty extrication equipment, cardiac care devices, MCI supplies, personal protective equipment, equipment which meets the basic licensure requirements and other tools of the trade.

3. Goals:

Goal 1: Southwest Region Council grant-supported EMS training.

Objective1: Provide funding in each fiscal year of the biennium for grants to support training in rural, volunteer agencies with priority to supporting maintenance of licensure and verification.

Strategy 1: Use funding priorities in making council grant decisions for training.

Strategy 2: Direct Local County EMS/Trauma Councils and Agencies to seek Needs Grants.

Cost:
Estimated System cost: in excess of $1,000,000.00 annually to maintain current provider levels.
Regional Council Cost: up to $50,000.00 annually

Critical Barriers: The need for funding support exceeds the amount of available Council funding.

D. Verified Aid and Ambulance Services:

1. System Status:

Table D: Approved Min/Max numbers of Verified Trauma Services By Level, Type and County

County (Name)	Verified Service Type	State - Approved *Minimum number*	State - Approved *Maximum number*	Current Status (# Verified for each Service Type)
Clark	Aid – BLS	1	12	5
	Aid –ILS	0	0	0
	Aid – ALS	1	12	2
	Amb –BLS	1	4	1
	Amb – ILS	0	0	0
	Amb – ALS	1	4	3
Cowlitz	Aid – BLS	1	5	4
	Aid –ILS	0	0	0
	Aid – ALS	1	5	0
	Amb –BLS	1	5	1
	Amb – ILS	0	0	0
	Amb – ALS	1	5	4
Klickitat	Aid – BLS	1	11	9
	Aid –ILS	0	0	0
	Aid – ALS	1	4	0
	Amb –BLS	1	4	2
	Amb – ILS	0	0	0
	Amb – ALS	1	2	2
Skamania	Aid – BLS	1	6	2
	Aid –ILS	0	0	0
	Aid – ALS	1	1	0
	Amb –BLS	1	1	0
	Amb – ILS	0	0	0
	Amb – ALS	1	1	1
South Pacific	Aid – BLS	1	2	0
	Aid –ILS	0	0	0
	Aid – ALS	1	2	0
	Amb –BLS	1	2	0
	Amb – ILS	0	0	0
	Amb – ALS	1	2	2
Wahkiakum	Aid – BLS	1	1	0
	Aid –ILS	0	0	0
	Aid – ALS	1	1	0
	Amb –BLS	1	3	2
	Amb – ILS	0	0	0
	Amb – ALS	1	2	1

Determining the need and distribution of Trauma verified services is a county process. The DOH criteria for establishing need and distribution is used in developing recommendations for changes in distribution. In preparation for regional planning the regional council solicits local county council information about local need for changes to verified services distribution.

Table E: Trauma Response Areas

County	Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries	Type and # of Verified Services in each Response Areas * use key
Clark	#9	Within the current city limits of Camas	A-1 F-1
	#2	Within the current city limits of Vancouver	C-1 F-1
	#1	Within the current city limits of Washougal	A-1
	#10	Within the current city limits of Yacolt and its unincorporated environs in North Clark County	F-1
	#1	Within the current Clark CFPD#1 boundaries	A-1
	#3	Within the current Clark CFPD#3 boundaries	B-1
	#6	Within the current Clark CFPD#6 boundaries	C-1
	#9	Within the current Clark CFPD#9 boundaries	A-1
	#10	Within the current Clark CFPD#10 boundaries	B-1
	#11	Within the current Clark CFPD#11 boundaries	F-1
	#12	Within the current Clark CFPD#12 boundaries	A-1
Cowlitz	#6	Within the current city limits of Castle Rock	F-1
	#2	Within the current city limits of Kelso	F-1
	#2	Within the current city limits of Longview	A-1 F-1
	#1	Within the current city limits of Woodland	A-1 D-1
	#1	Within the current Cowlitz CFPD#1 boundaries	D-1
	#2	Within the current Cowlitz CFPD#2 boundaries	F-1
	#3	Within the current Cowlitz CFPD#3 boundaries	A-1
	#4	Within the current Cowlitz CFPD#4 boundaries	A-1
	#5	Within the current Cowlitz CFPD#5 boundaries	F-1
	#6	Within the current Cowlitz CFPD#6 boundaries	F-1
	#7	Within the current Cowlitz CFPD#7 boundaries	F-1

***Key: For each level the type and number should be indicated**

Aid-BLS = A Ambulance-BLS = D
Aid-ILS = B Ambulance-ILS = E
Aid-ALS = C Ambulance-ALS = F

County	Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries	Type and # of Verified Services in each Response Areas * use key
Klickitat	#1	Within the current Klickitat CFPD#1 boundaries	A-1
	#2	Within the current Klickitat CFPD#2 boundaries	D-1
	#3	Within the current Klickitat CFPD#3 boundaries	A-1
	#4	Within the current Klickitat CFPD#4 boundaries	A-1
	#7	Within the current Klickitat CFPD#7 boundaries	A-1
	#8	Within the current Klickitat CFPD#8 boundaries	D-1
	#9	Within the current Klickitat CFPD#9 boundaries	A-1
	#10	Within the current Klickitat CFPD#10 boundaries	A-1
	#11	Within the current Klickitat CFPD#11 boundaries	LAid-1
	#12	Within the current Klickitat CFPD#12 boundaries	A-1
	#13	Within the current Klickitat CFPD#13 boundaries	A-1
	#14	Within the current Klickitat CFPD#14 boundaries	A-1
	#2,7,9,12	Within the current PHD#1 boundaries	A-1, F-1
	#1,3,4,8,13,14	Within the current PHD#2 boundaries	F-1
Pacific	#2	Within the current city limits of Ilwaco	LAmb-1
	#1	Within the current city limits of Long Beach	LAmb-1
	#4	Within the current city limits of Naselle	LAmb-1
	#7	Within the current city limits of Raymond	F-1
	#1	Within the current Pacific CFPD#1 boundaries	F-1
	#2	Within the current Pacific CFPD#2 boundaries	LAid-1
	#7	Within the current Pacific CFPD#5 boundaries	D-1
Skamania	#1	Within Skamania County	F-1
	#5	Within the current Skamania CFPD#4 boundaries	LAid-1
	#6	Within the current Skamania CFPD#6 boundaries	A-1
Wahkiakum	#1	Within the current city limits of Cathlamet	D-1
	#5	Within the current Wahkiakum CFPD#2 boundaries	D-1
	#6	Within the current Wahkiakum CFPD#3 boundaries	D-1

***Key: For each level the type and number should be indicated**

Aid-BLS = A	Ambulance-BLS = D
Aid-ILS = B	Ambulance-ILS = E
Aid-ALS = C	Ambulance-ALS = F

Current agencies providing services in Southwest Region Counties

Clark County:

- City of Vancouver Fire Department
- City of Camas Fire Department
- Clark County FPD 6 (Hazel Dell)
- Clark County FPD 11 (Battle Ground)
- City of Washougal Fire & Rescue
- Clark County FPD 1 (surrounding Washougal)
- Clark County FPD 3 (Brush Prairie)
- Clark County FPD 9 (Camas)
- Clark County FPD 10 (Amboy)
- Clark County FPD 12 (Ridgefield)
- Clark County FPD 14 (La Center)
- North Country EMS (Yacolt) (Public EMS District)
- City of Woodland Fire Department (part)
- American Medical Response

Cowlitz County:

- City of Longview Fire Department
- Cowlitz 2 Fire and Rescue (Kelso)
- City of Woodland Fire Department (part)
- Castle Rock Fire & EMS
- Cowlitz FPD 1 (Woodland)
- Cowlitz FPD 3 (Toutle Fire & Rescue)
- Cowlitz County FPD 4 (Ryderwood)
- Cowlitz FPD 5 (Kalama)
- Cowlitz FPD 7 (Ariel)
- American Medical Response

Klickitat County:

- Klickitat Valley Hospital Ambulance (Goldendale)
- Skyline Hospital Ambulance (White Salmon)
- Klickitat County FPD 1 (Trout Lake)
- Klickitat County FPD 2 (Bickleton/Cleveland)
- Klickitat County FPD 3 (Husum)
- Klickitat County FPD 4 (Lyle)
- Klickitat County FPD 7 (Goldendale FD)
- Klickitat County FPD 8 (Glenwood)
- Klickitat County FPD 9 (Roosevelt)
- Klickitat County FPD 10 (Alderdale)
- Klickitat County FPD 12 (Klickitat)
- Klickitat County FPD 13 (Appleton)
- Klickitat County FPD 14 (High Prairie)

(South) Pacific County:

- Long Beach FD/Amb Svc (Long Beach) (private NFP)
- City of Ilwaco Fire Department
- Naselle Fire Department (FPD)
- Pacific county FPD 1 (Ocean Park)
- Pacific County FPD 2 (Chinook)

Skamania County:

- Skamania County Public Hospital District 1 (Skamania County EMS)
- Skamania County FPD 4
- Skamania County FPD 6 (Cougar)
- North Country EMS and Skamania County EMS (part)

Wahkiakum County:

- City of Cathlamet Fire Department
- Wahkiakum County FPD 2 (Skamokawa)
- Wahkiakum County FPD 3 (Grays River)

2. Need Statement:

There is a need to further define under-served or un-served areas in the Region and identify need resources. Rural and wilderness areas have not been fully identified in mapping response areas. At this time response maps demonstrate apparent gaps in areas throughout the region which may or may not represent true gaps in provider coverage. A mapping analysis of response area coverage needs to be completed for planning improved resource distribution.

There are no recommended changes in distribution of identified services or minimum / maximum numbers for prehospital services in the biennial plan.

3. Goals:

Goal 1: Un-served or under-served areas and resource needs are clearly defined.

Objective 1: By the end of the June 2007, based on current service areas, the Local Councils will review the current response area maps and identify un-served or under-served areas in their counties to determine if min/max numbers for verified aid and ambulance services require adjustment in the next biennial plan.

Strategy 1: Provide regional council assistance with accurate identification of un-served or under-served areas.

Strategy 2: Conduct one workshop at each Local Council to clarify the DOH criteria for identifying need and distribution and its application to making changes of the min/max verified services numbers.

Strategy 3: As needed provide Regional Council assistance in developing justification proposals for recommended min/max changes to need and distribution numbers within counties.

Strategy 4: Council approval of recommendations and integration into the next regional plan.

Cost:
Estimated System cost: unknown
Regional Council cost: Cost Absorbed by Administrative overhead.

Critical Barriers: none

E. Patient Care Procedures (PCPs), County Operating Procedures (COPs) and multi-county/inter-regional operations:

1. System Status:

Attached are a copy of the current PCPs and COPs in Exhibit 2.

All Southwest Region Counties provide routine patient care through individual county Patient Care Protocols. Two of the six Southwest region counties have developed COPs for use in conjunction with PCPs and Protocols. Although each county has adopted individual protocols, the protocols themselves are similar and in some cases virtually identical. This similarity has allowed for a universal high quality of care provided to patients across county boundary lines. At this time there are no multi-county or intra-regional protocols. Established mutual aid agreements guide combined operations across jurisdictional lines.

Patient Care Procedures are well established and functioning throughout the Southwest Region. The Southwest Region Quality Improvement & Assessment Committee has reviewed data showing Patient Care Procedures are being followed. The Southwest Region MPDs continue to support the active use of PCPs within their counties. The Southwest Regional Council's process for ongoing review of the PCPs and COPs follows the State guidelines. Each county reviews their COPs at the local County EMS/Trauma Council level. Upon completion of review they submit any changes or updates to the Southwest Region Council for approval. The Southwest Regional Council utilizes local input for review and update of regional PCPs. At this time there are no recommended changes to either the PCPs or COPs. The Southwest Region PCPs are posted on the Region's website and are Exhibit 2 of the Southwest Region EMS and Trauma Care System Plan.

2. Need Statement:

While PCPs have been developed and are in place throughout the region, COPs are only in place in two of the six Southwest Region counties. The Regional Council has recognizes a need to support the Local EMS County Councils in identifying the need for COPs in the counties and to provide assistance, as needed, in the development of COPs.

3. Goals:

Goal 1: County Operating Procedures are in place.

Objective1: By June 2007, Council Staff will assist those Counties wishing to develop, review or revise COPs by clarifying the relationship of COPs to the general PCPs, and, at the request of Local Councils, review proposed COPs.

Strategy 1: Identify counties without COPs and notify Local Councils of the availability of this service.

Costs:
Estimated System Cost: up to $12,000 annually
Regional Council Cost: Cost Absorbed by Administrative overhead.

Critical Barriers: none

V. Designated Trauma Care Services

A. Trauma Services

1. System Status:

Table F: Approved Min/Max numbers of Designated Trauma Care Services (General Acute Trauma Services)

Level	State Approved		Current Status
	Min	Max	
II	1	1	1
III	1	1	1
IV	3	3	3
V	1	2	0
II P	0	1	0
III P	0	1	0

Table G: Approved Min/Max numbers of Designated Rehabilitation Trauma Care Services

Level	State Approved		Current Status
	Min	Max	
II	1	1	1
III			

The following is a list of designated and recognized facilities in the Region:

Receiving Facilities:	**City:**	**Level**	**Lic. Beds**
SW Washington Medical Center	Vancouver	II	360
St. Johns Medical Center	Longview	III	346
Skyline Hospital	White Salmon	IV	32
Klickitat Valley Hospital	Goldendale	IV	31
Ocean Beach Hospital	Ilwaco	IV	25
Washington State designated centers outside the Southwest Region:			
Providence Hospital	Yakima	III	
Yakima Memorial Hospital	Yakima	III	
Oregon Hospitals recognized as part of the SW Washington Trauma System:			
Legacy Emmanuel Hospital & Health Center	Portland	I	340
Oregon Health Sciences University	Portland	I	341
Columbia Memorial Hospital	Astoria	III	37
Hood River Memorial Hospital	Hood River	III	32
Mid-Columbia Medical Center	The Dalles	III	49

The Southwest Region has an established network of trauma services. There are five designated trauma services within the regional boundaries. Additionally, due to geography and close proximity of high level Oregon trauma services, two out of region Washington State designated trauma services and five Oregon trauma centers are part of the network. Rehabilitation for trauma is available within the region and through the Oregon trauma system.
The proximity of the two Level I facilities in Oregon influences the availability of specialty trauma care at the Region's Level II and III facilities. Patients requiring specialty trauma care that is unavailable locally (certain methods of orthopedic injury fixation, burn care, and spinal cord injury) are promptly transferred to the Oregon Level I facilities. The routine transport of critical pediatric patients to Oregon Level I facilities has reduced the need for local pediatric specialty care.

There are no gaps in the provision of trauma care services. At this time the min/max numbers of designated trauma services have been met and patient care needs are being fulfilled. As a result, there are no recommended changes to the identified minimum / maximum numbers in the biennial plan.

2. Need Statement:

The lack of reimbursement through the supplemental trauma reimbursement program in the last biennium and the changes to the Washington State Indigent Program has had an ongoing devastating effect on trauma facilities throughout the state and within this region. The cost of trauma patient care has increased in excess of reimbursement. While the Washington State trauma reimbursement program provides some relief, the constraints on availability of the trauma funds through that program, outside market insurance rates, and non-qualifying no-pay patients continue to negatively impact hospitals.

Physician coverage is an issue in some rural areas. Many rural and wilderness areas have difficulty getting physicians and/or physicians' assistants to live in their small communities. These areas must share coverage by physicians from neighboring counties. Where there are subspecialty physician shortages, the need has been identified and some agreements are in place with other regional designated trauma centers to fulfill those needs.

3. Goals:

Goal 1: A system of designated trauma care services, and trauma rehabilitation services meets the Southwest Region's trauma patient care needs.

Objective 1: Use the Regional QI Committee to monitor system effectiveness and report needs to the Regional Council for system planning at least semi-annually.

Strategy 1: Maintain support to the Southwest Regional Council QI Committee.

Costs:
Estimated System Cost: unknown
Estimated Regional Council Cost: $8,000.00 biennially

Critical Barriers: none

VI. EMS And Trauma System Evaluation

A. Information Management

1. System Status:

EMS and trauma data and system information are important elements of the Southwest EMS and trauma care system. System participants are strong supporters of the use of data to direct the system. The Regional Council has individuals involved in the Washington State EMS Information System (WEMSIS) project. They keep the Council informed on the direction of the project and represent the needs of Southwest Region. A few prehospital agencies currently use electronic data collection systems which is the target for agency level participation in WEMSIS when it is operational. Other agencies use paper systems. Throughout the region, MPDs require patient care reporting and utilize run review information to evaluate prehospital care. Currently all dispatch centers generate run times. Some have developed systems to make the data available to agencies for their use. Trauma data collection and submission is the responsibility of the designated trauma care

services in the region. They indicate receipt of prehospital medical incident reports (MIR) from prehospital providers. The submission rate of MIRs is over 90 percent. The trauma services all participate in the State Trauma Registry. The region's designated trauma care services submit 100 percent of the data provided on run forms. The least completed data element on medical incident reports (MIRs) is run times.

2. Need Statement:

There are several gaps related to EMS and trauma system data and system information that affect the region. Current EMS and trauma system RCW and WAC have been interpreted by DOH to be insufficient to require prehospital data submission or protect submitted data. Because of this, EMS agencies are no longer submitting their data directly to regional or state registries and data are less available to use to provide information about the system. In order to restore the availability of complete region-wide data with which to monitor and improve the system, RAC and WAC changes are needed. Additionally, funding is needed to augment the inherent costs of prehospital data collection and submission. Mechanisms are needed to keep costs under control for both urban and rural agencies.

3. Goals:

Goal 1: Complete EMS and trauma data is available in the Southwest Region.

Objective 1: Ensure regional involvement in the WEMSIS project at regularly scheduled DOH Data TAC meetings during each year in the biennium and report at Regional and Local County Council meetings.

Strategy 1: Develop a mechanism to ensure that at least one representative from the region is planning to attend each scheduled Data TAC meeting.

Objective 2: Determine the need for Southwest Region Council support for training of trauma registrars at the Southwest Region's designated trauma facilities and budget Southwest Region Council funding annually where feasible.

Strategy 1: Survey Southwest Regions designated trauma facilities to determine needs status.

Costs:
Estimated system costs: Unable to determine at this time.
Regional Council cost: up to $5,000 annually for meetings

Critical Barriers: Changing RCW and WAC to allow for protected data collection and submission and provide funding to augment costs are critical barriers to the goal.

B. Quality Assurance

1. System Status:

EMS agency providers and the Designated Trauma facilities are active members represented at the Southwest Region Quality Assurance & Improvement (Q A & I) Committee. Through that body, system efficiencies and issues are identified and action plans are recommended to vested trauma care providers. Leadership at the prehospital level is provided by the MPDs, several of which are actively involved in Regional Q A & I Committee. They provide input for system improvement particularly at the prehospital level. Trauma Coordinators and physicians are members of the Regional Q A & I Committee and provide leadership of overall regional trauma quality assurance.

Available regional data are used to analyze the system and identify quality improvement audit filters. Currently only data on trauma patients is used. Prehospital trauma data are abstracted by trauma services from available run forms and entered into the Trauma Registry by hospital trauma registrars. Hospital trauma data are entered into the Trauma Registry at each individual hospital. The Trauma Services are responsible for submitting trauma data to DOH at specified intervals.

2. Need Statement:

Enhanced integration between prehospital agencies and designated trauma centers is needed to facilitate identification and communication of overall system issues to be targeted by the quality improvement process. This is critical to continued regional system development and the role of the Regional Council in coordinating system planning. A broader definition of QA & I that includes the development of system targets for performance and the measurement of system performance against these bench marks is needed for an effective regional improvement system.

Regional QA & I has no consistent funding source to support ongoing participation of committee members. This burdens prehospital agencies and hospitals with the expense and jeopardizes participation. Regional Council funding is limited to support QA & I.

3. Goals:

Goal 1: The Regional QA & I Committee monitors system effectiveness and communicates system findings to EMS and trauma system participants.

Objective1: Utilize aggregated QA & I Committee findings for annual regional system reporting and planning

Objective 2: Budget Regional Council funding to help support Regional QA & I meetings as needed.

Costs:
Estimated System Cost: unknown
Estimated Regional Council Cost: $3,000.00 biennially

Critical Barriers: none

VII. All Hazards Preparedness

A. Prehospital Preparedness

1. System Status:

Prehospital EMS agencies across the region play an active role in disaster preparedness. Their training includes management of multi-casualty events. Many have developed response kits and participate in annual all hazards drills. In addition, EMS agencies are now becoming more involved with weapons of mass destruction (WMD) preparedness efforts led by local, state and federal organizations. This includes broadening their planning involvement and exercised with multiple disciplines across the region, including with public health jurisdictions, department of emergency management and homeland security.

The Regional Council is involved in WMD planning and system development through a contract with the DOH. The Council contract directly with DOH for specific prehospital system development deliverables. The Council currently has a limited subcontracting agreement to complete these deliverables.

The Regional Council has not yet identified the current status of WMD preparedness in the region for the following:

- prehospital WMD equipment
- prehospital WMD awareness training
- written agreements between prehospital agencies for mutual agency response in disaster for WMD natural/manmade incidents
- the current capability in the region for providing prehospital field burn care for a group of 50 severely burned adult and pediatric patients

The Region has not yet identified the current status of interoperability between agencies and across multiple disciplines in multiple-patient and mass casualty/disaster incidents for the following:

- Equipment resources (compatible care equipment, radios etc)
- EMS agencies communications (with dispatch, between units and disciplines across the region, and with receiving hospitals for on-line medical direction
- WMD patient care procedures/protocols/guidelines

The Council will address the current status of the preparedness elements noted above through the Executive Board and will develop an action plan for gathering the necessary information in 2005. This will be coordinated with existing contract deliverables under the current DOH WMD preparedness contract. The Council will incorporate this information into Regional Plan and submit a revised section to DOH when complete.

2. Need Statement:

A primary system need is for the Regional Council to gather current status information on the All Hazard Preparedness elements in order to complete this section of the plan. This will lay the foundation for development of a region-wide planning process.

3. Goals:

Goal 1: A formal inclusive region-wide all hazard planning process is in place.

Objective 1: Develop a regional action plan to identify the current status and system needs related to All Hazard Preparedness by the end of 2005

Objective 2: Complete All Hazards Preparedness section revision and submit to DOH by July 2006. For DOH preparedness contract deliverables, meet the designated timeframes.

Objective 3: Region staff will participate in the Region 4 Homeland Security Technical Committee

Cost:
Estimated System Cost: Initial Region-wide costs have not been projected
Regional Council Cost: Assigned to administrative overhead

Critical Barriers: The current composition of Hospital Bioterrorism regions and EMS & Trauma regions complicates planning and organizational efforts.

B. Hospital Preparedness

1. System Status:

Hospitals across the region play an active role in disaster preparedness. For several years their collaborative planning under WMD contracts has identified gaps in hospital disaster preparedness and provided the opportunity to build the missing resources to manage potential disaster events. The hospitals are currently working under the public health grant to increase their capabilities even further. This has positioned the hospitals to be much better prepared as a regional resource. The Regional Council continues to participate with the hospitals in planning for disaster. The Region 4 Hospital Preparedness Plan delineates the hospital disaster role.

2. Need Statement:

The region's hospitals need to continue to work as a collaborative body toward a comprehensive planning process for managing disaster events. Specific needs have been identified by the participating hospitals and are being addressed through federal grant funding.

3. Goals:

Goal 1: A formal inclusive region-wide all-hazard planning process is in place.

Objective 1: Region staff will participate in the Region 4 Homeland Security Technical Committee

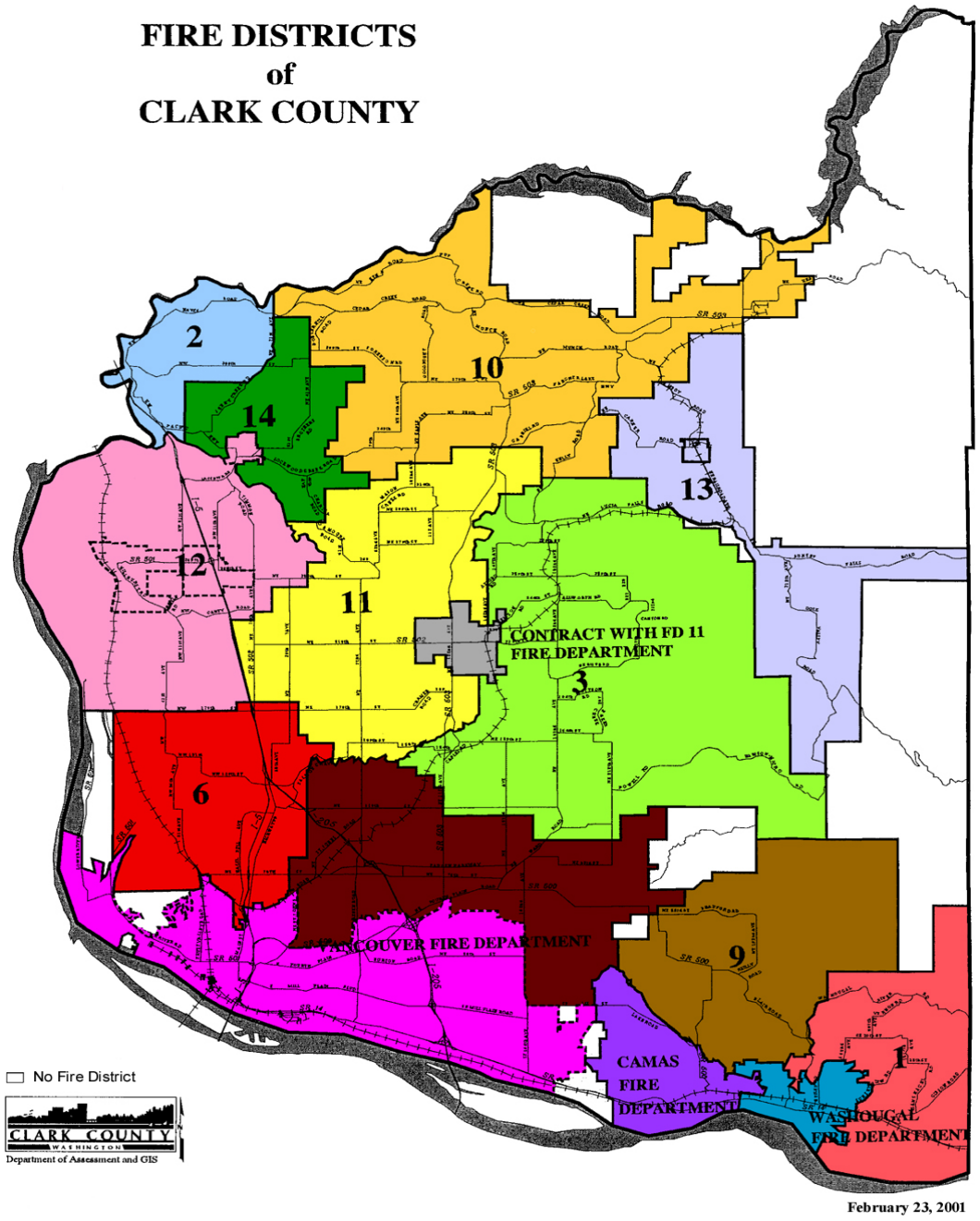
Objective 2: Hospitals continue to participate in the disaster preparedness planning process

Cost:
Estimated System Cost: Initial Region-wide costs have not been projected
Regional Council Cost: Assigned to administrative overhead

Critical Barriers: The current difference in composition of Hospital Bioterrorism regions and EMS & Trauma regions complicates planning and organizational efforts which is leading to redundancies in some areas and missed opportunities in others.

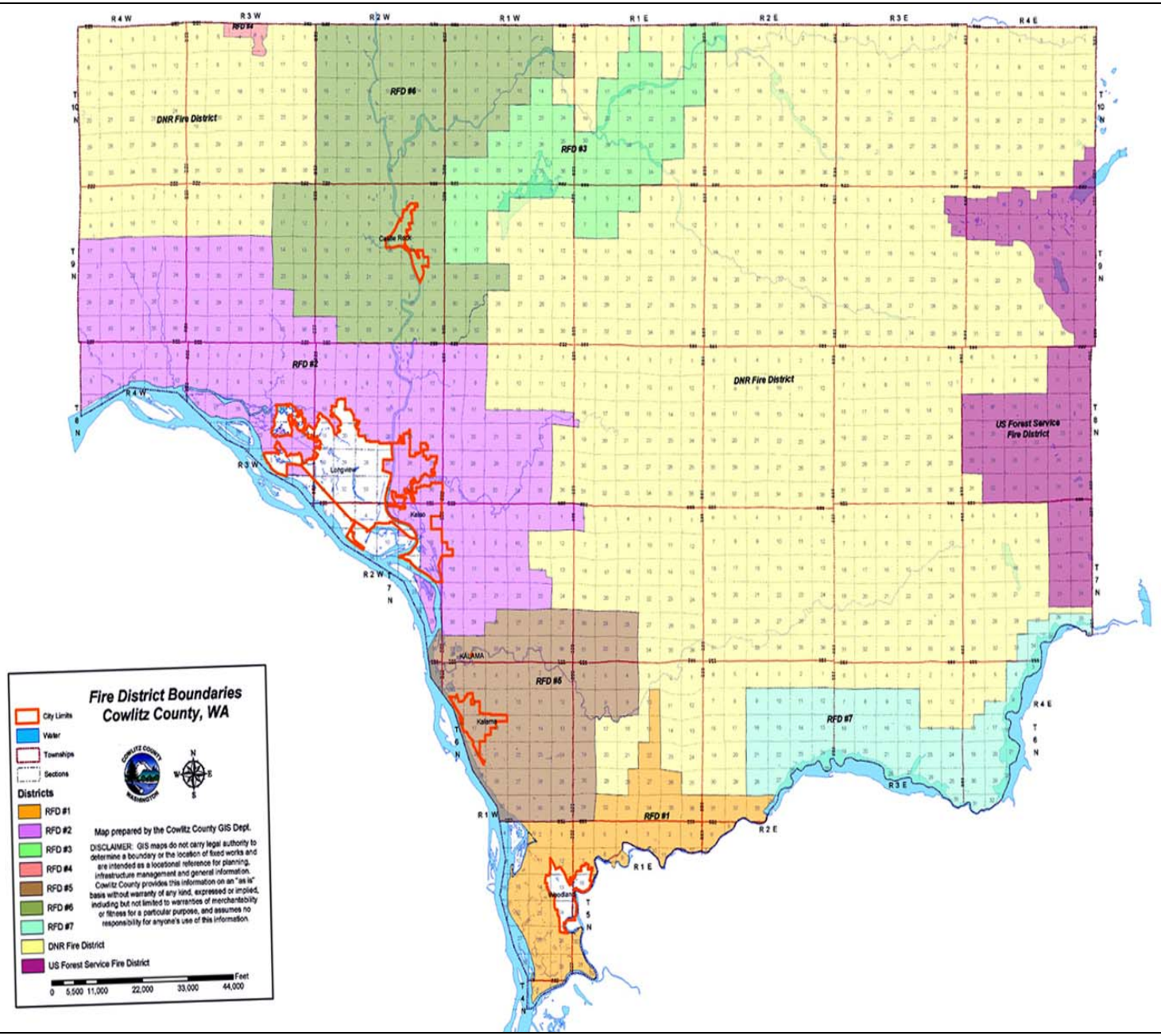
Exhibit 1 – Southwest Region Trauma Response Area Maps

Clark County



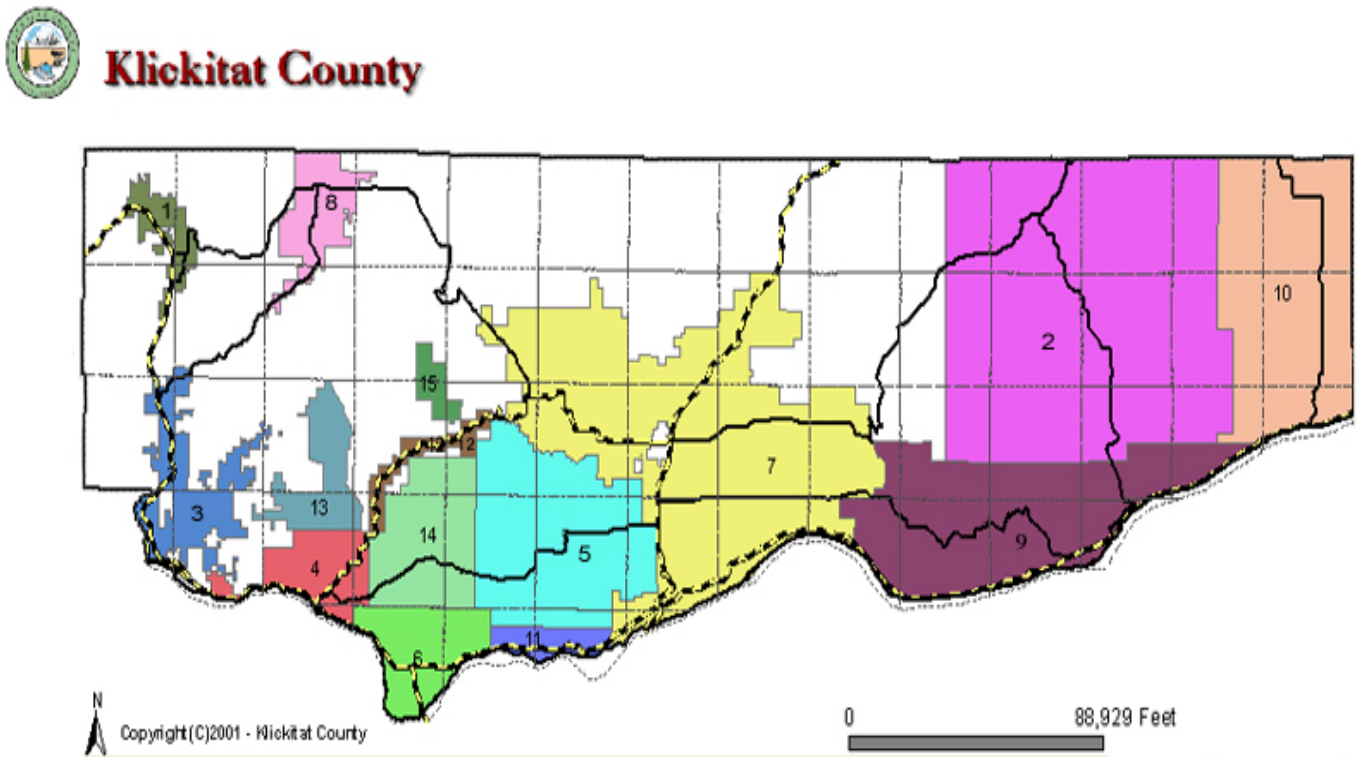
Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
	Within the current city limits of Camas
	Within the current city limits of Vancouver
	Within the current city limits of Washougal
	Within the current city limits of Yacolt and its unincorporated environs in North Clark County
#1	Within the current Clark CFPD#1 boundaries
#3	Within the current Clark CFPD#3 boundaries
#6	Within the current Clark CFPD#6 boundaries
#9	Within the current Clark CFPD#9 boundaries
#10	Within the current Clark CFPD#10 boundaries
#11	Within the current Clark CFPD#11 boundaries
#12	Within the current Clark CFPD#12 boundaries

Cowlitz County



Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
	Within the current city limits of Castle Rock
	Within the current city limits of Kelso
	Within the current city limits of Longview
	Within the current city limits of Woodland
	Within the current Cowlitz CFPD#1 boundaries
	Within the current Cowlitz CFPD#2 boundaries
	Within the current Cowlitz CFPD#3 boundaries
	Within the current Cowlitz CFPD#4 boundaries
	Within the current Cowlitz CFPD#5 boundaries
	Within the current Cowlitz CFPD#7 boundaries

Klickitat County

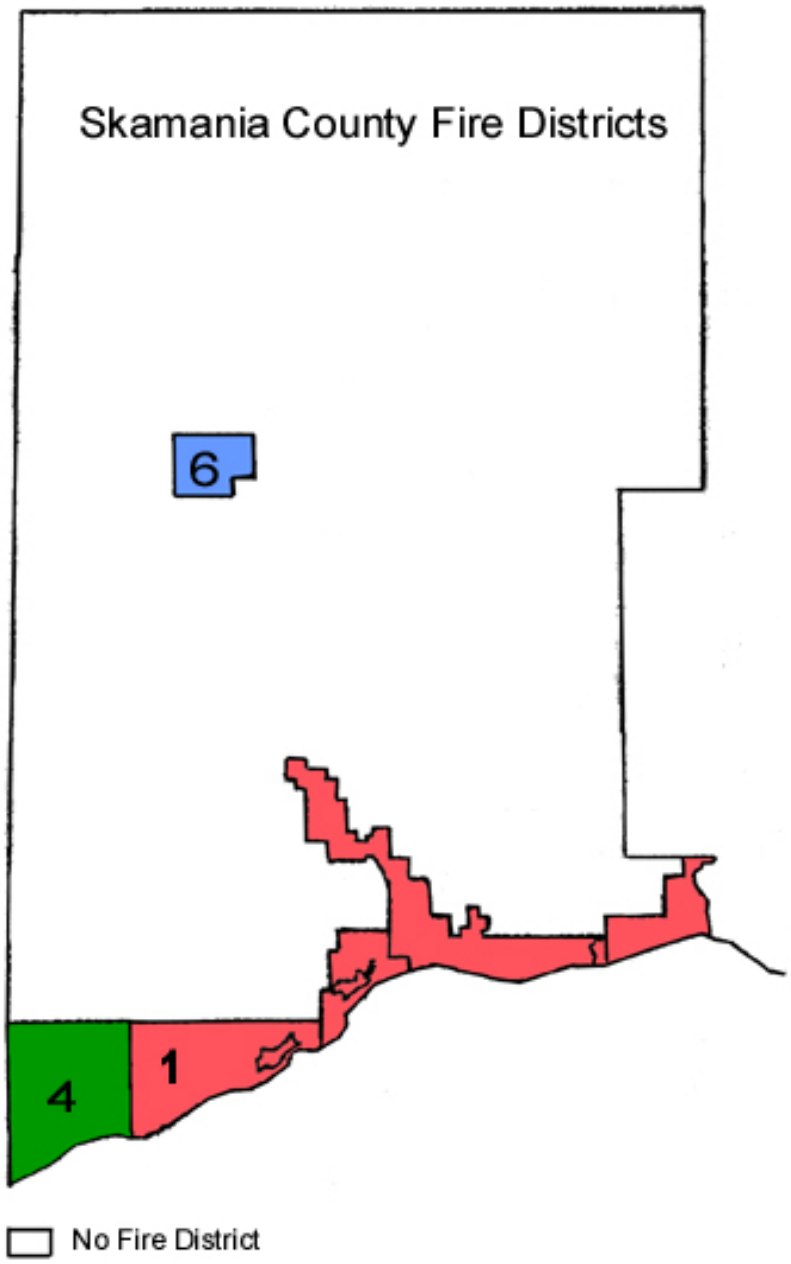


Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
#1	Within the current Klickitat CFPD#1 boundaries
#2	Within the current Klickitat CFPD#2 boundaries
#3	Within the current Klickitat CFPD#3 boundaries
#4	Within the current Klickitat CFPD#4 boundaries
#7	Within the current Klickitat CFPD#7 boundaries
#8	Within the current Klickitat CFPD#8 boundaries
#9	Within the current Klickitat CFPD#9 boundaries
#10	Within the current Klickitat CFPD#10 boundaries
#11	Within the current Klickitat CFPD#11 boundaries
#12	Within the current Klickitat CFPD#12 boundaries
#13	Within the current Klickitat CFPD#13 boundaries
#14	Within the current Klickitat CFPD#14 boundaries
	Within the current PHD#1 boundaries
	Within the current PHD#2 boundaries

Pacific County

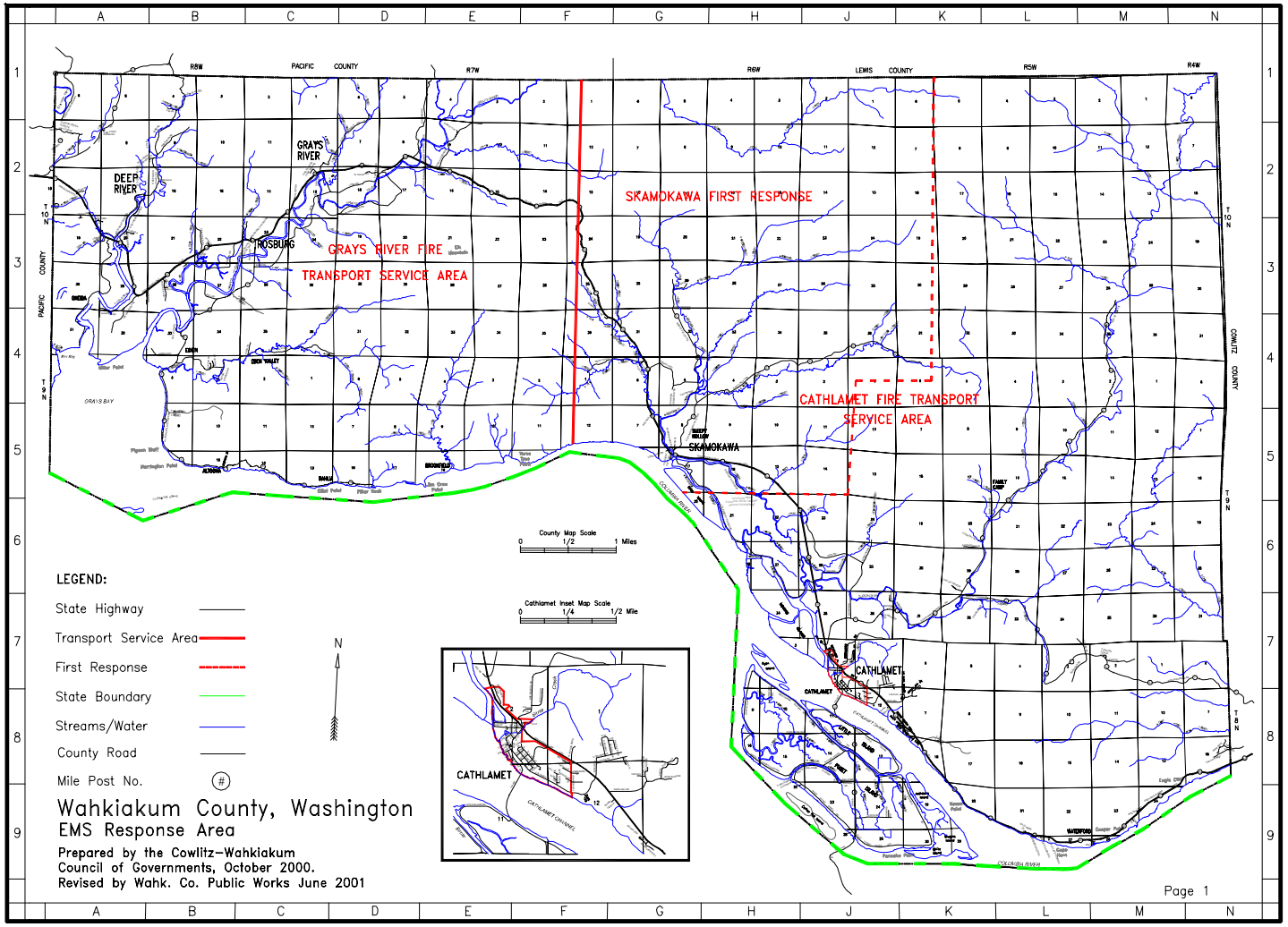
Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
#2	Within the current city limits of Ilwaco
#1	Within the current city limits of Long Beach
#4	Within the current city limits of Naselle
#7	Within the current city limits of Raymond
#1	Within the current Pacific CFPD#1 boundaries
#2	Within the current Pacific CFPD#2 boundaries
#5	Within the current Pacific CFPD#5 boundaries

Skamania County



Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
#1	Within Skamania County EMS
#4	Within the current Skamania CFPD#4 boundaries
#6	Within the current Skamania CFPD#6 boundaries

Wahkiakum County



Trauma Response Area Number	Description of Trauma Response Area's Geographic Boundaries
#1	Within the current city limits of Cathlamet
#5	Within the current Wahkiakum CFPD#2 boundaries
#6	Within the current Wahkiakum CFPD#3 boundaries

Exhibit 2 – Southwest Region Patient Care Procedures

APPROVED DRAFT
12/1/99

Southwest Region EMS and Trauma Care Council
1999 REVISED

SW Region Prehospital Trauma System Activation & Destination Procedures

These procedures are based on the triage/assessment of the trauma patient using the State of Washington Prehospital Trauma Triage Destination Procedures.

Airway is of primary concern! If the patient's airway cannot be effectively managed consider rendezvous with ALS or immediate diversion to closest facility able to provide definitive airway management.

Step I - **Assess Vital Signs and Level of Consciousness:**
If any criteria met:

- Immediately notify the highest level trauma center within 30 minute transport time that your patient meets *Trauma System Entry* criteria and begin transport.
- If facility cannot accept your patient (i.e., on divert) immediately divert to the next closest, highest level trauma center. Notify receiving facility that your patient meets *Trauma System Entry* criteria.

Step II - **Assess Anatomy of Injury:**
If any criteria met:

- Immediately notify the highest level trauma center within 30 minute transport time that your patient meets *Trauma System Entry* criteria and begin transport.
- If facility cannot accept your patient (i.e., on divert) immediately divert to the next closest, highest level trauma center. Notify receiving facility that your patient meets *Trauma System Entry* criteria.

Step III - **Assess Biomechanics of Injury and Other Risk Factors:**
If any criteria met:

- Immediately notify the closest trauma center that your patient meets *Trauma System Entry* criteria and begin transport.
- If facility cannot accept your patient (i.e., on divert) immediately divert to the next closest, highest level trauma center. Notify receiving facility that your patient meets *Trauma System Entry* criteria.

For all Trauma System Entry Patients:

- Affix the State of Washington Trauma ID Band to the patient, document the number and submit data (after the incident) to the State.
- Consider activation of an Air Ambulance if it will decrease total out of hospital time to the trauma center by 10 minutes or more.
- If in doubt regarding destination decision, follow local on or off line Medical Control.

DEFINITIONS

Aid Vehicle - a first response, non-transport vehicle that meets the Washington Administrative Code (WAC 246-976) and, in the Southwest Region, one that provides first response emergency medical services 24 hours per day, seven days per week and is recognized as a resource in the Regional EMS and Trauma Plan.

Ambulance - a transport vehicle that meets the Washington Administrative Code (WAC 246-976) for ill and injured patients, and, in the Southwest Region, one that provides emergency medical services 24 hours per day, seven days per week ~~period~~ and is recognized as a resource in the Regional EMS and Trauma Plan.

EMD - means provision of special procedures and trained personnel to ensure the efficient handling of medical emergencies and dispatch of aid. It includes pre arrival instructions for CPR and other verbal aid to callers. (from WAC)

Global Positioning System (GPS) - a satellite based location system for accurately determining the exact latitude and longitude of a particular point on the Earth's surface.

Major Trauma Patient - a patient who meets the Washington State Prehospital Trauma Triage Tool's Step 1 or 2 (physiologic or anatomic) criteria for potentially life threatening injuries.

Medical Control - the on-line and/or off-line direction (protocols) of prehospital EMS providers provided by MPD'S and/or MPD approved physician delegates.

Patient Care Procedures Standard - the expectation set on a regional or statewide basis by which the system will be evaluated.

Patient Care Procedures Purpose - why a procedure covering an area of the EMS and Trauma Care System is necessary.

Patient Care Procedures - written operating guidelines adopted by the regional emergency medical services and trauma care council in accordance with state-wide minimum standards. The patient care procedures shall include: a description of the activation of the trauma system; the level of medical care personnel to be dispatched to an emergency scene; procedures for triage of patients; the level of trauma care facility to first receive the patient; and the name and location of other trauma care facilities to receive the patient should an interfacility transfer be necessary

Patient Care Protocols - standard medical orders developed and adopted by a county Medical Program Director that indicate the type of care to be provided to medical and trauma patients.

Pediatric Major Trauma Patient - a patient who is a major trauma patient estimated to be under the age of 15 years.

Quality Improvement - the process used to evaluate the effectiveness of a procedure in the system and to recommend changes in the implementation process of the Regional Plan and in this procedure as may be indicated.

Trauma System Entry – means a patient who meets the Washington State Prehospital Trauma Triage Tool's criteria for potentially life threatening injuries.

Trauma Verified Service - a DOH approved and regionally recommended first response or ambulance service that provides twenty-four hour per day emergency medical responses, seven days per week, with response ambulances and/or first response vehicles with personnel trained in emergency care of the trauma patient.

Triage And Transport

PURPOSE

The purpose of the Southwest Region Patient Care Procedures (PCPs) is to ensure that the right patient is transported to the right designated medical care facility at the right time. These PCPs are not designed to replace logical or reasonable standards of care that exist within a community, but to help guide and instruct prehospital and trauma designated personnel in the proper systems flow of patients who enter the trauma system in the Southwest Region. Nor are they designed to replace Medical Program Director's Patient Care Protocols or Guidelines that exist in a particular county. They are designed to compliment MPD's protocols and/or guidelines, and direct patient flow in the Southwest Region, ensuring that major trauma patients (and other medical and minor trauma patients) receive the most appropriate care possible. These PCPs should be reviewed by MPDs, Trauma Centers, Verified First Response and Ambulance Services, 9-1-1 Centers, EMS administrators, and the first responders, EMTs, and paramedics who make up the system in the Southwest Region.

STANDARD: THE GOLDEN HOUR

These PCPs were designed:

To provide timely care to all trauma patients so major trauma patients are provided appropriate medical treatment within the "golden hour" of trauma treatment.

To minimize response time in order to get trauma trained personnel to the scene of a major trauma incident as quickly as possible so that major trauma patients are provided appropriate prehospital care within the "golden 10 minutes" of arrival upon the scene.

STANDARDS: GENERAL

All licensed and verified ambulance and aid services shall:

1. Comply with standards outlined in the latest Regional EMS and Trauma Care System Plan, as well as policies, rules, and regulations in the Washington Administrative Code and Revised Codes of Washington, including the Washington Prehospital Trauma Triage Tool (WAC 246-976-390)

2. Transport patients to the most appropriate designated Trauma Center or facility, as outlined in these PCPs.

IDENTIFICATION OF **PREHOSPITAL** MAJOR TRAUMA PATIENTS

Trauma System Entry patients are those who are identified by the initial EMS field assessment using the most current (see attached) copy of the Washington State Prehospital Trauma Triage Tool. Ideally, a paramedic or the highest level of provider to arrive first at the scene should make the determination as to whether a patient is classified as a Trauma System Entry patient.

When in doubt, err on the side of caution, and assume any trauma patient is a potential Trauma System Entry patient that must be treated at a designated Trauma Center.

DESIGNATED TRAUMA CENTERS - Southwest Region

In the Southwest Region, the following hospitals are Washington designated Trauma Centers:

Southwest Washington Medical Center, Medical Center Campus, Vancouver, WA - Level II
St. John Medical Center, Longview, WA -- Level III
Skyline Hospital, White Salmon, WA -- Level IV
Klickitat Valley Hospital, Goldendale, WA -- Level IV
Ocean Beach Hospital, Ilwaco, WA -- Level IV

(Level I is the highest level of designated Trauma Center in the Regional Trauma System, with in-house trauma care available 24 hours per day. Southwest Washington recognizes Levels I, II, III, IV, and V. A Level V trauma center can provide the least technical care and should be considered as stabilization center only, with the intent of getting a major trauma patient from a Level III, IV or V trauma Center to a Level I or Level II Trauma Center as quickly as the patient is stabilized or is ordered transferred by the lower level designated Trauma Center's medical staff).

In The Southwest Region, the following level I, III and IV hospitals in are recognized as trauma resource hospitals for the Region.

- Providence Hospital	Yakima	Level IV
- Yakima Memorial	Yakima	Level III
- Legacy Emanuel Hospital and Health Center	Portland	Level I
- Oregon Health Sciences University	Portland	Level I
- Columbia Memorial Hospital	Astoria	Level III
- Hood River Memorial Hospital	Hood River	Level III
- Mid-Columbia Medical Center	The Dalles	Level III

Prehospital Procedures

When a prehospital trauma verified service has identified a patient as a major trauma patient, the prehospital service should ensure the following:

1. Contact with Medical Resource Hospital (University Hospital, Portland, OR) for Level I access or the Level II Designated Trauma Center (Southwest Washington Medical Center), where available; or

2. The highest level of designated facility within the agency's immediate response jurisdiction if a Level I or Level II Trauma Center is not within a 30-minute response time. Contact by radio, cellular phone, telephone, or other means as conditions dictate.

When a non-trauma verified prehospital service has contact with a major trauma patient prior to the arrival or dispatch of trauma verified service(s) they shall ensure that:

- The appropriate 9-1-1 dispatch center is immediately notified so that trauma verified services can be activated.

Activating The Trauma System

Contact

To activate the Trauma System in the Southwest Region, contact with the appropriate designated Trauma Center shall be preceded with the phrase: "THIS IS A TRAUMA SYSTEM ENTRY." this alerts the trauma center that you have a potential 'major' trauma patient.

It is important for the EMS agency to provide the designated Trauma Center with the following information:

A. Identification of the EMS agency or Trauma Verified Service
B. Patient's chief complaint(s) or problem: identification of biomechanics and anatomy of injury.
C. Approximate age of the patient
D. Basic vital signs (palpable pulse rate, where pulse was palpated, ~~and~~ rate of respiration and blood pressure if obtainable).
E. Level of consciousness (Glasgow Coma Score)
F. Other factors that require consultation with the base station.
G. Number of patients (if known)
H. Estimated Time of Arrival
I. Whether an air ambulance has been activated for scene, field, or hospital rendezvous.

Major Trauma Patients

When it has been determined that a patient meets the trauma inclusion criteria an orange Washington State Trauma Registry band should be attached to the patient's wrist or ankle as soon as possible. The number on the Trauma Registry Band shall be recorded on the medical incident report (by all prehospital agencies -- both first response and transport agencies) and in the hospital trauma registry database (by the Trauma Registrar at the hospital).

Air Ambulance

Air ambulance shall be considered for use by prehospital agencies in the Southwest Region for major trauma patients when transport by air will reduce the overall out of hospital time to the most appropriate designated trauma center by 10 minutes or more. If the air ambulance is required, request 9-1 -1 or your dispatch services to "ACTIVATE AIR AMBULANCE FOR A TRAUMA SYSTEM ENTRY." If you have Global Positioning System coordinates of your location, give these to your 9-1-1 Center and/or Dispatch Services so that they may relay them to the Air Ambulance Service. If you begin ground transport of the patient for rendezvous with an air ambulance service, notify the service of your intent to meet them at a location. Again, if the GPS of the rendezvous is known, give that location to the 9-1-1 center or dispatch service for relay to the air ambulance service.

It is highly recommended that all EMS services have predesignated rendezvous sites within their county and GPS coordinates for each site should be identified in advance. These GPS coordinates should be placed on a map inside each trauma verified vehicle that will respond to a major trauma patient. These maps should be readily available to each first responder, EMT, or paramedic using the vehicle.

Prolonged Transport

When the transport of an major trauma will be greater than 30 minutes to a Level I or II Trauma Center but within 30 minutes of an lesser level facility, the highest level EMS provider on the scene should immediately contact on line medical control and request instructions as to whether the patient should be transported to a Level V, IV, or III center for stabilization or whether they should be transported directly to a Level I or Level II Trauma Center.

All information on "major" trauma patients shall be documented according to WAC and County Medical Program Director guidelines.

While enroute to the receiving facility, the transporting agency should provide a complete report to the receiving trauma center regarding the patient's status, and provide them with any further information that may be needed, including estimated time of arrival to their facility.

Pediatric Major Trauma Patients

For a pediatric major trauma patient consideration should be given to transport the patient directly from the field (either by air ambulance or ground ambulance -- see above, Air Ambulance for guidance) to the most appropriate (Level I, II, III) trauma facility within the Region. In most cases, a pediatric major trauma patient will be transported to a Level I Trauma Center. However, other designated Trauma Centers, may offer initial stabilization of the pediatric patient. All level Trauma Centers in the Southwest Region shall follow their guidelines for diversion of pediatric patients directly from the prehospital setting based on the availability and potential need for surgical or medical subspecialty care or resources specific to the care of the pediatric patient. When a prehospital service notifies a Trauma Center that they have a major pediatric trauma patient, the Level II, III, IV, or V center should immediately notify the trauma designated EMS agencies of the diversion policy.

Diversion – Trauma Center(s) Not Accepting Patients

Designated Trauma Centers in the Region will go on diversion for receiving major trauma patients based on the facilities' inability to provide initial resuscitation, diagnostic procedures, and/or operative intervention at the designated level of care.

Diversion will be categorized as partial or total based on the inability of the facility to manage specific types of major trauma or all major trauma at the time.

Trauma Centers shall consider diversion of major trauma patients when:

1. A Surgeon is unavailable
2. The OR is unavailable
3. The CT scanner is down (if Level II)
4. Neurosurgeon is unavailable if (Level II)
5. Emergency Department is unable to manage more major trauma; and/or
6. Other specific resources needed for care of a trauma patient are unavailable

Each designated Trauma Center will have a hospital-approved policy to divert patients to other designated facilities based on its ability to-manage each patient at a particular time. A diversion log will be kept, indicating the time of diversion and the reason for partial or total diversion.

EMS agencies in the Southwest Region will be notified if and when a Trauma Center is on diversion status. Trauma verified services will follow their medical program director's guidelines on where trauma patients should be taken, in the event the closest or most appropriate trauma center is not accepting patients.

MPDs should develop diversion protocols for their respective counties.

Medical Patients

All EMS Agencies should follow their Medical Program Director's patient care protocols and/or guidelines for the care and transport of medical and non-major trauma patients. If it is unclear as to where a medical or non-major trauma patient should be transported, contact medical control at your nearest resource hospital for directions; otherwise follow off-line medical control of patients as outlined in your standing orders, patient care protocols, and/or guidelines provided by your Medical Program Director.

MPDs, in the development of their patient care protocols and/or guidelines for the care and transport of the medical and non-major trauma patient, shall consider:

A. Patient's desire or choice of medical facility as to where they want to be transported and/or treated. Or, in the case of an unconscious patient, the wishes of the patient's family or personal physician.

B. The type of treatment and the ability of a receiving hospital to treat such medical or non-major trauma (i.e., high risk OB patients, potential ICU/CCU patients, unstable co-morbid medical patients, etc.).

C. Level, severity, and type of injuries.

D. Ability of the receiving hospital to adequately treat the medical or non-major trauma patient.

In all cases, unless proper medical care dictates otherwise, the choice of the patient is paramount in the development of standing orders, patient care protocols, and/or guidelines for EMS transport agencies.

Quality Assessment And Improvement (QA&I)

Quality Assessment & Improvement (QA&I) is an integral component of the Southwest Region's Trauma System. For all patients, EMS and health care providers will follow their agency's specific QA&I plan. If an agency does not have a QA&I Plan, one should be developing and adopted. Issues that are deemed by the QA& I committee ~~board~~ for their review and recommendations should be submitted directly to the regional QA&I committee for consideration. QA&I prehospital problems, issues, case reviews, areas of improvement, can be "flagged" by checking the "QI" Box on the medical incident reporting form, available from the State EMS Office. Any system issues that affect patient care are encouraged to be submitted. Refer to SW Region QA&I plan for more information regarding QA&I for the region.

Dispatch And Response Times

STANDARD: DISPATCH

Dispatchers who operate a 9-1-1 Center in the Southwest Region should use a regionally approved medical priority dispatch program available from the Southwest Region EMS & Trauma Care Council. All dispatchers should be trained in a regionally adopted and medical program director approved emergency medial dispatch program (EMD) and be regionally certified as EMDs. Such persons who are not certified should be in a sixteen-hour in-house training program that provides them with the principles of EMD dispatch. EMDs should follow priority dispatch for major trauma patients.

EMDs should use the priority dispatch guidelines when dealing with a major trauma patient.

LEVEL OF SERVICE TO BE DISPATCHED

When a 9-1-1 Center receives a call that suggests to the emergency medical dispatcher (EMD) that a "major" trauma patient is involved, the EMD should dispatch the highest level of care that is generally available in the response area. First response trauma verified services, where available, should also be dispatched. In all counties in the Southwest Region, paramedics or the highest level of provider, specifically trained in prehospital trauma life support should be dispatched to the scene of a major trauma incident, when available.

The 9-1-1 Center should immediately notify both the first response service and the transport service that this is "a potential 'major' trauma patient response." It is the responsibility of the responding agency to have the appropriate trained prehospital trauma life support medical technicians respond to the scene. If prehospital agencies do not have resources available who are trained in prehospital trauma life support, the agency should immediately notify the 9-1-1 Center to dispatch a trauma verified service to the scene of the call to assist with the patient or patient(s). In all suspected "major" trauma patients, the nearest and highest level of EMS provider should be dispatched as part of the initial EMS response to any trauma patient. Ideally, this would be a paramedic service with trauma trained individuals on board.

Dispatch Of Nearest Trauma Verified Service

Response Systems

County 9-1-1 Centers should develop response systems to determine which nearest trauma /trauma verified first response and transport service should be dispatched to the scene of a major trauma incident or patient.

For all "major" trauma patients or 'suspected' major trauma patients, emergency dispatch agencies or 9-1-1 Centers shall dispatch trauma verified service(s) to the scene of the trauma incident in accordance with the dispatch system and compatibility of service providers.

In the instance where no trauma verified service is available, the 9-1-1 Center should dispatch the nearest available first response and/or ambulance service to the scene of the trauma incident with the highest level of care available.

If in doubt as to whether the incident being reported to the 9-1-1 Center involves a "major trauma patient, " until notified otherwise by a paramedic or the highest level EMS provider on the scene, ASSUME THE INCIDENT INVOLVES A MAJOR TRAUMA PATIENT and dispatch according to this section of the Region's Patient Care Procedures. Remember that time is of the essence for major trauma patients.

Response Mode

If a major trauma patient is known or suspected, 9-1-1 Centers should advise all responding trauma services of any and all additional information that becomes available to the 9-1-1 center.

Response Times

To ensure timeliness in the dispatch of a trauma verified service, the following guidelines have been adopted by the Regional Council for response times (measured from the time the call is received by the responding agency until the time the agency arrives on the scene of the trauma incident):

First Response Trauma Verified Services (response times, 80 percent target)

Urban Areas: 4 minutes
Suburban Areas: 5 minutes
Rural: 12 minutes
Wilderness: within 60 minutes, but as soon as possible.

Transport Trauma Verified Services (response times, 80 percent target)

Urban Areas 8 minutes
Suburban Areas 15 minutes
Rural 35 minutes
Wilderness: within 60 minutes, but as soon as possible.

These response times apply to all trauma verified services in the Southwest Region, and apply to all major trauma patients.

Interfacility Transfer/Transfer Agreements

All Level II (Southwest Washington Medical Center, Medical Center Campus, Vancouver), Level III (St. John Medical Center, Longview), Level IV (Ocean Beach Hospital, Ilwaco, WA; Skyline Hospital, White Salmon; and Klickitat Valley Hospital, Goldendale, WA), and Level V (none at present) designated trauma facilities shall have transfer agreements with Level I Trauma Centers (Emanuel Hospital and/or University Hospital) for the transfer of emergency medical and trauma patients, as necessary. Identification of patients who meet trauma transfer criteria shall be according to the Washington State recommended guidelines for Adult & Pediatric Trauma Transfer Criteria (See Appendix A)

All Interfacility transfers shall be in compliance with current EMTALA regulations and must be consistent with the Revised Codes of Washington (70.170.060(2).

All Interfacility transfers of major trauma patients shall consider an air ambulance service where out of hospital times can be reduced by 10 minutes or more, or an appropriate level of trauma verified transport service, where transport can be appropriately handled by such a ground service (i.e., Southwest Washington Medical Center to University Hospital, for example), in all other cases.

Procedures

Designated Trauma Centers shall have published adult and pediatric trauma transfer criteria available for use by the emergency department personnel (Appendix A).

Interfacility Transfer Of A Major Trauma Patient

When a major trauma patient must be transferred from a lower level Trauma Center to a higher level center (Level IV to Level I, for example), the transferring physician must contact the receiving physician who must accept the transfer of the patient prior to the patient leaving the sending facility.

The transferring physician and facility will ensure the appropriate level of care during transport of the major trauma patient to the receiving Trauma Center.

The receiving facility must accept or be available to accept the major trauma patient prior the patient leaving the sending facility.

The receiving facility will be given the following information on the patient by fax, phone, or other appropriate means:

a. Brief History
b. Pertinent physical findings
c. Summary of any treatment done prior to the transfer
d. Response to therapy and current condition

All appropriate documentation must be available at the receiving facility upon arrival of the patient to the receiving facility (it may be sent with the patient, faxed to the hospital, or relayed by other appropriate means).

The transferring physician's orders shall be followed during transport. Should the patient's condition change during transport. The pre-determined on-line or off-line medical control for the transporting agency shall be utilized.

Further orders may be given by the receiving physician.

> MPD approved, or County protocols should be followed during transport, unless direct medical orders by the sending or receiving physician are given to the contrary.
>
> All ground Interfacility transports must be conducted by a trauma-verified service for trauma system patients.

Appendix A - Interfacility Transfer Criteria

All designated health care facilities shall have transfer agreements for the identification and transfer of trauma patients as medically necessary.

General Trauma Transfer Criteria

Patients from the following categories are at high risk for death or disability and shall be considered for transfer to a facility designated to provide Level I or Level II Trauma Care Services.

A. Central Nervous System

1. Head injury with (any 1 of the following):
   (a) Open, penetrating, or depressed skull fracture
   (b) CSF leak
   (c) Severe coma (GCS< 10)
   (d) Deterioration in GCS of 2 or more
   (e) Lateralizing signs
2. Unstable spine
3. Spinal cord injury (any level)

B. Chest

1. Suspected great vessel or cardiac injuries
2. Major chest wall injury
3. Patients who may require protracted ventilation

C. Pelvis

1. Pelvic ring disruption requiring transfusions
2. Evidence of continued hemorrhage
3. Compound/open pelvic injury or pelvic visceral injury

D. Multiple system injury

1. Severe facial injury with head injury
2. Chest injury with head injury
3. Abdominal injury with head injury
4. Burns with head injury

E. Specialized Problems

1. Critical burns>20% of body surface areas or involving airway;

F. Secondary Deterioration (late sequelae)

1. Patient requires mechanical ventilation
2. Sepsis
3. Organ system(s) failure (deterioration in CNS, cardiac, pulmonary, hepatic, renal, or coagulation systems)
4. Osteomyelitis

Pediatric Trauma Transfer Guidelines

(Adopted by the Governor's EMS & Trauma Care Steering Committee on July 19, 1995)

Consideration shall be given to early transfer of a child to the regional pediatric trauma center when required surgical or medical subspecialty care or resources are unavailable. These include, but are not limited to the following:

1. Hemodynamically stable children with documented visceral injury being considered for "observational" management. Although the efficacy of this approach in selected cases has been well documented, two significant caveats always apply:

   a). Hemodynamic instability mandates immediate operative intervention, and;
   b). Nonoperative care is safe only in an environment that provides both close clinical observation by a surgeon experienced in the management of childhood trauma and immediately available operative care.

2. Children with abnormal mental status. In all but the infant, outcome from closed head injury has been shown to be significantly better for the child than for the adult. Although the quality and timeliness of initial resuscitation are the most important determinants of outcome from brain injury, continued comprehensive management in specialized units with multi-disciplinary pediatric critical care teams may provide a more rapid and complete recovery.

3. Infants and small children. Severely injured infants and small children are the most vulnerable and, frequently, the least stable trauma victims. Because they require the special resources and environment of a regional pediatric Trauma Center, transfer should occur as soon as safely feasible.

4. Children with injuries requiring complex or extensive reconstruction. These services are traditionally most available in hospitals capable of functioning as a regional pediatric trauma center. It is especially important that children with impairments requiring long-term follow-up and supportive care have this provided or at least coordinated by the regional pediatric Trauma Center.

   Follow-up of injury-related disability is an essential requirement of the regional pediatric Trauma Center's trauma registry.

5. Children with polysystem trauma requiring organ system support. This is especially important for those patients requiring ventilatory, cardiovascular, renal, or nutritional support. Because these problems usually occur synchronously and require precise interdisciplinary coordination, they are best managed in comprehensive facilities such as regional pediatric Trauma Centers.

Southwest Region County Operating Procedures (COPS)

Cowlitz County Operating Procedures

AERO-MEDICAL SERVICE STAND-BY AND ACTIVATION PROTOCOL

I. The use of Aero-Medical Services should be considered when a patient is a high priority for immediate transport and the use of aero-medical transport will save 10 minutes of patient's total out-of-hospital time.

II. Other Situations That May Warrant The Use Of Aero-Medical Transport:
- A. Multiple patient scenes or Mass Casualty Incidents;
- B. Extended extrication, resulting in extended scene times;
- C. Traffic impediments such as snowy or icy roads, heavy traffic congestion, obstructed scene;
- D. High EMS system demands;
- E. Difficulty for ground ambulance to access scent;
- F. Normal ground routes to a receiving facility inaccessible.
- G. Paramedic's Discretion based on the following considerations:
  1) Major Trauma patients with severe head injury GCS <10 or spinal cord injury with paralysis.
  2) Major Burns requiring burn center intervention.
  3) Pediatric multisystem trauma patient with shock and/or potential PICU admission.
- H. If in doubt, the Paramedic is encouraged to contact Medical Control for guidance.

III. Considerations For Aero-Medical Transport Requests:
- A. Inclement weather may prevent flight;
- B. Helicopter availability;
- C. Landing zone proximity to the scene and the role of an intermediate rendezvous point between the scene and the hospital;
- D. On main arterial roads, consider the possibility that aero-medical services may not save time;
- E. Aero-medical service may have multiple, simultaneous requests and may have to triage the requests.
- F. It may be appropriate to activate aero-medical service and then cancel it if the situation changes and ground transport would be more prudent.

IV. Standby:

An aero-medical service, such as Life Flight, can be placed on "Standby" status where the helicopter and flight crew are readied for service but do not respond until activated. *Keep in mind that this may prohibit the service from responding to another call until cleared by the initial requesting agency.*

- A. It is appropriate to place aero-medical services on standby prior to EMS personnel arrival on the scene if first response time to the scene will be greater than 10 minutes and the information dispatched purports to be the type of patient who will benefit from aero-medical services.

B. Aero-medical services may be placed on "Standby" by contacting the Cowlitz County 911 Communications Center.
   1. Any certified EMS personnel can request Standby status for aero-medical services.
   2. NOTE: LIFE FLIGHT also will accept requests from non-EMS personnel such as, logging crew bosses, law enforcement, etc.

V. Activation of Aero-Medical Services
   A. The decision to activate LIFE FLIGHT rests with a responding paramedic, first response incident commander, or a physician on scene:
      1. As paramedic arrives on scene and evaluates patient OR;
      2. Based upon information relayed to paramedic by people on scene.
   B. In some cases aero-medical services can be immediately dispatched (activated) to the scene prior to the arrival of a first-in unit or paramedic, when:
      1. Travel time for that first-in unit will be over 20 minutes and the situation as known purports to be the type of patient who will benefit from aero-medical services.
      2. Where it is known that difficult terrain will be encountered rendering ground assess difficult but where the helicopter can get near the patient easily.
      3. Where the reporting party relates some other special circumstance indicating the need for immediate activation of aero-medical services.
      4. On scene EMS responders relate to the paramedic the need for activation of aero-medical services prior to the paramedic's arrival
   C. In all situations of activation, it shall be done with concurrence of responding paramedic(s).

VI. Cancellation Of Aero-Medical Services
   A. Only a responding paramedic can cancel aero-medical services once it has been activated.
   B. The responding paramedic can cancel aero-medical service based on the information provided from on-scene EMS personnel but is still ultimately responsible for the decision. It shall not be the decision of a First Responder or an EMT at the scene to cancel aero-medical services.
   C. Aero-medical services may be canceled by the paramedic responsible for the patient upon examination of the patient and it is apparent that air transport is not necessary.
   D. Aero-medical services should not be used for obvious DOA's, trauma codes and other situations where the outcome is an obvious fatality. (Refer to Death in the Field protocol).

VII. Quality Assurance Review
   A. All use of aero-medical services, including standby, will be reviewed by the Medical Program Director in 100% QA&I review.

General Patient Care Related Guidelines

I. Level of EMS Response
   A. It is recognized that it is in the best interest of patient care and public safety to slow down or cancel EMS units responding Code 3 to emergency calls when it is determined by certified EMS personnel that the patient does not require an additional emergency response. It is also recognized that situations may arise that immediate emergent transport will improve patient care.
      1. "Slow down"
         a. The first arriving EMS unit should slow down other responding EMS units to an appropriate lower response level when it is determined by certified EMS personnel that an immediate emergency does not exist.
      2. "Cancellation"
         a. The first arriving EMS unit may "cancel" other responding EMS units if no patient can be found.
   B. An ALS transport unit may be diverted to another call when all the following conditions are met:
      1. It is obvious the second call is a life threatening emergency and it is determined by certified EMT's or Paramedics that the first call can await a second ambulance.
      2. A second ambulance is dispatched to the first call.
      3. The first ambulance is decidedly closer to the second call and the response would be vital to the patient's survival.

II. Level of Care
   A. The EMS personnel with highest level of certification level shall be in charge of patient care.
      1. Paramedics may delegate non-ALS patients to an EMT but the paramedic is ultimately responsible for the care delivered and the documentation while the Paramedic is on-scene or enroute to the hospital with that patient.
         a. First Responders cannot be designated to provide patient care during transports.
         b. Inappropriate designation of EMS personnel to provide patient care may be grounds for removal of protocol privileges pending formal determination and/or investigation from the Department of Health.
      2. When more than one patient is in need of care, the most critical patients shall receive care from the EMS personnel with the highest certification, the most training and experience as appropriate.
      3. All ALS patients shall receive care from paramedics whenever possible.
         a. Dispatch criteria for ALS / paramedic response include:
            1. Patient's requiring or possibly requiring ALS procedures.
            2. Patient's requiring or possibly requiring any medication.
            3. Abdominal pain,
            4. Allergic reaction,
            5. Breathing problems, shortness of breath, respiratory arrest,
            6. Any symptom of cardiac origin, chest pain, cardiac arrest,
            7. Convulsions / seizures,
            8. Drowning / near drowning
            9. Diabetic problems,
            10. Multiple traumas,

11. Overdose / poisoning,
12. Patient in shock (or possibly will develop shock),
13. Person down – Unknown
14. Possible DOA,
15. Pregnancy / Childbirth,
16. Stroke / CVA,
17. Unconsciousness for any reason.

4. Rapid transport by BLS should not be delayed awaiting an ALS unit in cases with critically ill or injured patients. Arrangements for a rendezvous should be coordinated to take place en route.

B. Cancellation of ALS / Paramedic Response
1. An ALS unit may be cancelled by First Response Unit EMS personnel if their evaluation CLEARLY DETERMINES A LACK OF POTENTIAL NEED and responding paramedics or Medical Control agree.

C. Cancellation of Aero-Medical Service
1. Once aero-medical services have been activated or placed on stand-by, it may only be canceled by responding paramedics. This may occur after direct communication with First Response Unit EMS personnel already at the scene.
2. Aero-Medical Services (See Aero-Medical Protocol).

III. Time On Scene
A. Airway Management
1. Any time an adequate airway cannot be established by BLS personnel **within 2 minutes** after initial encounter, transport the patient immediately, unless there are extenuating circumstances such as imminent arrival of ALS or inability to extricate. In such cases, it is essential to verify that ALS is enroute.

B. Medical Scene
1. If at any time EMS personnel have been or predict they will be on the scene for more than 20-30 minutes after the initial encounter, he/she will contact Medical Control for advice on whether the patient should be transported immediately or have further care rendered on the scene.

C. Trauma Scene
1. The trauma patient should be transported immediately. Only airway management, extrication, and spine immobilization should delay transport. Other treatments, including I.V. attempts, should not delay transport.

D. Cardiac Arrest Scene
1. Maximum scene time is 30 minutes.

E. Extenuating Circumstances
1. There may be times that scene times exceed maximum times. In those cases, the rational for extended scene times must be documented.
2. In cases of two or more patients, each with varying extrication times, additional transport vehicles should be requested to effect the earliest transport of patients as they are extricated.

IV. Transfer of Patient Care Between EMS Personnel.
A. Attention to quality patient care is of utmost concern. Should any issues or problems occur remember patient care comes first. All issues or problems that may affect patient care must be reported to the Medical Control immediately.

B. Both parties must acknowledge the transfer of care and record it in their respective documentation.

C. The transfer of patient care must be orderly, efficient and expedient.
D. A verbal or written report must be exchanged and the content of the report documented attached to the Medical Incident Report.
E. Both the initial care provider and the receiving care provider must submit a Medical Incident Report to the MPD.
F. Attention to quality patient care is of utmost concern. Should issues or problems occur, patient care always comes first. All issues or problems that may affect patient care must be reported to the MPD immediately.

NOTE: For more information refer to the Cowlitz County Mass Casualty Plan Appendix "A" on which this section is based.

WHAT CONSTITUTES A MULTIPLE PATIENT SCENE (MPS)

NOTE: A Multiple Patient Scene (MPS) is an emergency scene with **less than 5 CRITICAL PATIENTS** or **less than 10 TOTAL PATIENTS.** These numbers are intended as a guide only and may be adjusted to meet the needs of the incident. A Multiple Patient Scene does not trigger the activation of the Cowlitz County Emergency Operations Center unless other factors are involved.

A. Protocols require all Cowlitz County ambulances to contact St. John Medical Center for trauma patients of a disaster. (St. John Medical Center will be used exclusively for all initial medical contact and will be accessed on the existing radio system at VHF 155.34.)
B. LIMIT radio traffic to essential information only.
C. Continue use of organizational chart if possible. During an emergency response, communications are usually a problem and the flow of information is VITAL to the effort. Therefore, follow the chain of command. Information can and will be sought from certain individuals at the scene, but **all directives must come from the officers responsible for that discipline.**

PROTOCOL:
The EMT directing overall patient care is generally the first arriving medical unit. Terminology, responsibilities and duties will be much the same as a Mass Casualty Incident (MCI). All units will utilize the Incident Command System (ICS).

A. Upon arrival at the scene with multiple patients, the first arriving unit will advise Cowlitz County Communications (9-1-1) of:
    a. approximate number of patients,
    b. number, type and code of additional units needed,
    c. best access to the scene, if appropriate,
    d. any obvious or possible hazardous conditions.
B. Upon arrival at the scene with multiple patients, the first arriving medical unit * will:
    a. coordinate patient care,
    b. assure rapid triage of victims,
    c. have incoming EMS units report for patient assignments,
    d. if necessary, communicate with St. John Medical Center Emergency Department for patient destination instructions,
    e. monitor scene time.

- (This position should eventually be filled by a paramedic unless the determination by mutual agreement is made that a senior experienced EMT can better fill the needs of the position.)

If, at any time, the scene escalates to the point that it meets the criteria established for a Mass Casualty Incident (MCI), the MCI plan will be implemented and the MCI protocol will be followed, and Cowlitz County Communications (9-1-1) shall be notified of the change in status.

WHAT CONSTITUTES A MASS CASUALTY INCIDENT (MCI)

NOTE: A mass Casualty Incident (MCI) is an emergency scene with **5 or more CRITICAL PATIENTS** or **10 or more TOTAL PATIENTS.** These numbers are intended as a guide only and may be adjusted to meet the needs of the incident.

A. Protocols require all Cowlitz County ambulances to contact St. John Medical Center for trauma patients of a disaster. (St. John Medical Center will be used exclusively for all initial medical contact and will be accessed on the existing radio system at VHF 155.340).

B. LIMIT radio traffic to essential information only.

C. Continue use of the organizational chart if possible. During an emergency response, communications are usually a problem and the flow of information is VITAL to the effort. Therefore, follow the chain of command. Information can and will be sought from certain individuals at the scene, but **all directives must come from the officers responsible for that discipline.**

D. Cowlitz County adopts the standard for National Integrated Incident Management Systems (NIIMS) for scene sizing and management.

NOTE: *It is assumed that all responders on either the ambulance or rescue vehicles will be trained to at least the First Responder level.*

TRIAGE TAGGING

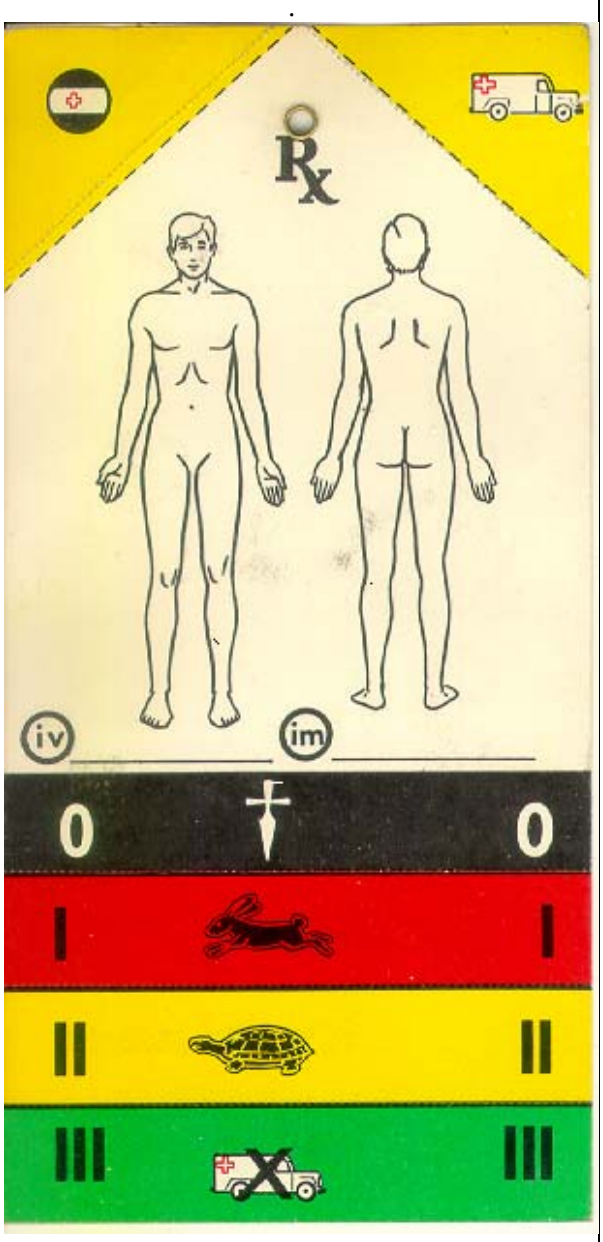
Since first responders will be doing the bulk of field triage in extensive emergency operations, it is important that they understand the use of triage tags and/or triage tape.

Identification and priority tags are essential for smooth triage at a disaster site. Color–coded tags or tape help to inform the Transportation Team Leader as to which patients to evacuate next.

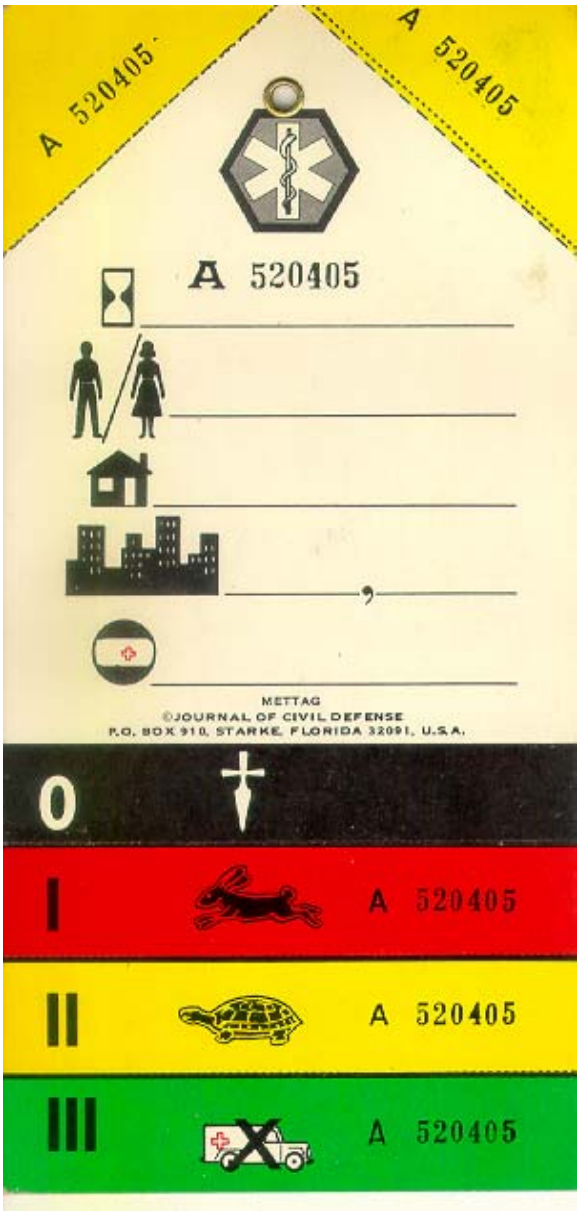
The tags are 4 ½" x 8 ½" and are relatively durable. These tags should be affixed to each casualty during the initial triage. Triage tape may be used in place of triage tags. If tape is used, it should be tied to the patient's upper arm.

At plane crashes, it is required that the upper left corner on the injury diagram side of the tag be removed and left where the victim was found.

Picture of both sides of Triage Tag



Picture of both sides of Triage Tag



This is the tag we use in the field triage. Front and back sides have space for recording patient identification and treatment. Urgency-rating strips at the bottom are color-coded green (III), yellow (II), red (I), and black (O).

TRIAGE TAGGING CONTINUED

The treatment and transportation area must be designed to handle the following priorities:

Priority 1: IMMEDIATE (Red)

Immediate life-threatening situation, which can be, more or less, promptly and easily corrected, i.e., coma with airway obstruction, massive external bleeding, tension pneumothorax, etc. Prompt transport.

Priority 2: DELAYED (Yellow)

Immediate treatment can be given; life is not immediately threatened, i.e., active moderate hemorrhage, major fractures, severe pain, and hysteria. Transport and intervention may be delayed for a time without endangering life.

Priority 3: (Green)

The "walking wounded;" minor wounds, minor fractures, small foreign bodies, and minor emotional problems.

Priority 4: DEAD OR CANNOT BE SAVED (Black or black and white striped)

Cannot be saved under the circumstances. Dead or almost dead, i.e., decapitation, massive chest wounds, total body burns with inhalation injury, etc. Included are patients in cardiac arrest following trauma; if there are limited resources or personnel available, transportation can be delayed.

TRIAGE SPECIAL CONSIDERATIONS

1. Wear protective clothing in the Immediate Danger Zone.

2. If there is any over-riding danger of fire or explosion, get the victims out of the danger zone immediately, if possible.

3. Remove victims to triage area.

4. Move the dead only if it is necessary for fire fighting or rescue effort.

5. Only immediate life saving treatment is to be done in the danger zone. Examples: Opening the airway.

6. Victims brought to the staging area should be placed with their heads toward the center of the tarp so the EMTs can better monitor them. NOTE: Tarps should not be placed too close together.

7. If the personnel are too busy in the Staging Area they should contact the Triage Officer. The Triage Officer will contact the Command Post to get more manpower.

8. A manpower pool may need to be established. The Command Post should be organized to perform additional sweeps over the area.

9. Field assessment can be handled by fire fighters. A search should be organized to perform additional sweeps over the area.

10. Crews should stay together as much as possible.

11. No victim should be left unattended in the Staging Area without checking with both the Triage Officer and the Transportation Officer. All victims should be funneled past the Triage Officer for screening. In this way, all victims are accounted for.

12. A school bus may prove handy for collecting the ambulatory victims and transporting them to a receiving facility. A church or school gym may be nearby and available to receive these people.

13. All victims, ambulatory or otherwise will be tagged. All tagged victims will be transported by a designated transport vehicle authorized by the Transportation Officer.

14. Other special considerations may be:

    a. An accurate size-up by the first arriving company.
    b. Is additional equipment needed?
    c. How many ambulances needed?
    d. Are police needed for crowd or traffic control?
    e. Should the Immediate Danger Zone be roped or sealed off?

Wahkiakum County Operating Procedures

Wahkiakum County EMS & Trauma Care Council

County Operating Procedure - No. 1

Subject: Automatic Dispatch of Adjacent Service

If within (5) minutes of initial dispatch, there is no response from the agency with primary jurisdiction, then dispatch shall re-tone the primary jurisdiction and shall also automatically dispatch the next closest licensed EMS agency in Wahkiakum County. "Response" means verification that a full crew is en route to the station or the EMS vehicle is en route from the station with appropriate crew en route to the scene.

Wahkiakum County EMS & Trauma Care Council

County Operating Procedure - No. 2

Subject: Verification of paramedic response

For the following types of calls, dispatch shall verify a paramedic response:

Motor Vehicle Collision involving more that one vehicle

Vehicle/pedestrian or vehicle/bicycle collision

Any call where the patient is unconscious and/or not breathing.

Any call where the patient is known to be experiencing anaphylaxis or hypoglycemia.

Any call where the patient is 45 years of age or older and is experiencing chest pain.

Any call where the patient is experiencing respiratory distress and is exhibiting an altered level of consciousness.

Any gunshot wound.

If the primary jurisdiction does not have a paramedic available, dispatch shall automatically dispatch a paramedic from the nearest available agency.